

BUSINESS WEEK

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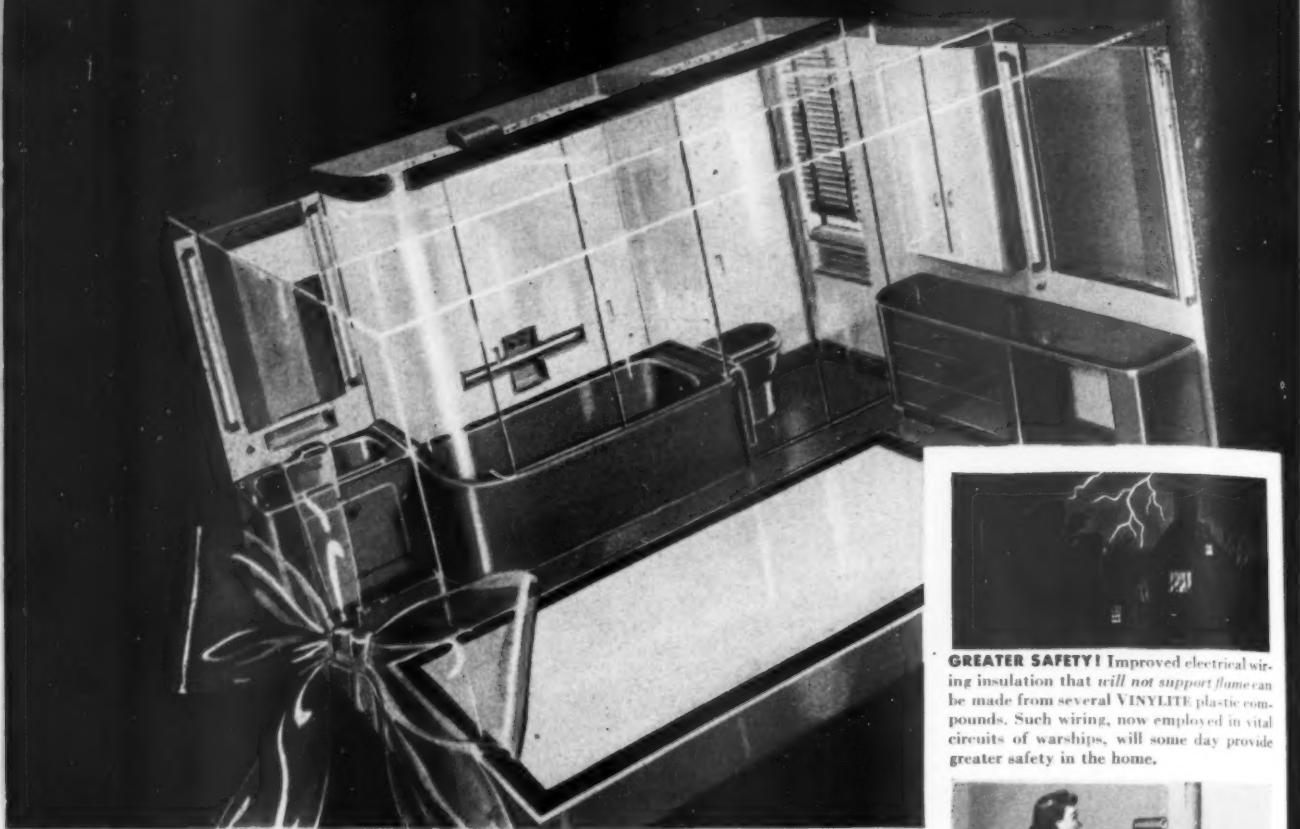
START
OF WAR
1939



BUSINESS
WEEK
EX

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ANN ARBOR MICH
DETROIT MICH
UNIVERSITY OF MICH



Plastics Will Mean Better Homes

...and more of them!

EVEN TODAY, plastics men can vision a bathroom with practically everything in it made of plastics or containing plastics in some form. Imagine such a bathroom, costing less to manufacture, to ship, and to install, delivered *as a unit* to your home!

The raw materials to make better homes with more bathrooms and finer kitchens come true are *in existence today* . . . in VINYLITE and BAKELITE resins, and plastics made from them.

BAKELITE resin-bonded plywood, like that from which planes and torpedo boats are made, can be used to make floors, walls, ceilings, and furniture.

The type of plastic film used in waterproof, chemical-resistant food bags and rifle covers can be fabricated into mildew-proof shower curtains. VINYLITE resins can also be made into rot-resistant floor coverings that can be walked on millions of times without showing appreciable wear!

Our engineers know from the record of VINYLITE plastic-coated life raft sails, sleeping bags, and life preservers, that

VINYLITE plastics and compounds can be used in the future to bring you wall coverings, window curtains, and furniture finishes that will outlast anything now available.

Under heat and pressure, VINYLITE and BAKELITE plastics can be molded into numberless useful forms. Experience gained in molding war equipment will help to bring you such things as molded plastic furniture which will be lighter, easier to move, easier to keep clean!

Spun plastics made from vinyl resins are resistant to rot. Right now, such plastics are used for making jungle hammock ropes and vital chemical filters. They also can be fashioned into draperies, upholstery, stockings, and other articles of clothing . . . sun-proof, water-proof, and moth-proof!

VINYLITE and BAKELITE resins and plastics, and many new techniques for using them, are peacetime research achievements of CARBIDE AND CARBON CHEMICALS CORPORATION and BAKELITE CORPORATION, both Units of UCC. Fabricators converting these raw materials into finished articles are making them mean more and more to you.



GREATER SAFETY! Improved electrical wiring insulation that *will not support flame* can be made from several VINYLITE plastic compounds. Such wiring, now employed in vital circuits of warships, will some day provide greater safety in the home.



MORE BEAUTY! New washable water paints based on BAKELITE resins, will bring new beauty to homes. These paints are inexpensive . . . and easy to apply!



LESS EXPENSE! Use of BAKELITE molding plastics in making washing machines, refrigerators, and many other household devices and fixtures can mean lower-priced, longer-lasting equipment for you.



LESS WORK! Easier cleaning of plastic-treated walls, ceilings, and floors. Plastic furniture and upholstery that are easier to keep clean. Yours in the future!

**BUY UNITED STATES WAR BONDS
AND STAMPS**

UNION CARBIDE AND CARBON CORPORATION

30 East 42nd Street **UCC** New York 17, N. Y.

Principal Products and Units in the United States

ALLOYS AND METALS

Electro Metallurgical Company
Haynes Stellite Company
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CHEMICALS

Carbide and Carbon Chemicals Corporation
ELECTRODES, CARBONS AND BATTERIES
National Carbon Company, Inc.

INDUSTRIAL GASES AND CARBIDE

The Linde Air Products Company
The Oxweld Railroad Service Company
The Prest-O-Lite Company, Inc.

PLASTICS

Bakelite Corporation
Plastics Division of Carbide and Carbon Chemicals Corporation

BANKING SERVICE FOR THE JOB AHEAD

ALL Americans agree that our first great job is to back up the men in the fighting forces. But fathers and mothers and friends of those at the front know that in the back of the minds of these fighting men is always the question of the jobs they will have when they come back. It is a matter of *present* morale that our soldiers and sailors should know that those at home are doing everything possible to develop practical plans for converting war production into equally successful peace-time production.

The banks of this country are actively participating in this effort. Officers of Bankers Trust Company have had wide experience in handling war-production loans and are giving continuous study to post-war conditions. We offer our services to business executives who are planning their post-war financing.

BANKERS TRUST COMPANY



BUSINESS WEEK

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... Kiss in the Dark!

He's about as sentimental . . . this fighter pilot . . . as a steel knife!

He reverently kissed his bullet-raked fighter plane when he landed her before dawn today. It was a kiss in the dark, but he wasn't hiding anything. Plenty of guys saw and heard it. They didn't smile!

There are this minute 100,000 warplanes *less than a year old*, in every part of the world, built by America's brilliantly organized and staffed aviation industry. The aviation industry has grown in a matter of months to have a greater dollar-volume of business than any other American industry.

This tough-souled fighter pilot probably doesn't give an academic hang

for the industry's size. But he's supremely concerned with his plane's performance and the steady output of its power-plant. And equally vital today is the steady flow of power from the power-plants of factories that build the warplanes he needs.

In many plane factories, skilled inspection engineers of the 77-year-old Hartford Steam Boiler organization are helping maintain the flow of power needed to produce those planes . . . by relentlessly seeking to detect hidden flaws and prevent disastrous accidents in boilers, pressure vessels, electrical and other equipment . . . before it is too late!



Covers: Boilers • Pressure Vessels • Steam, Gas and Diesel Engines • Turbines • Electrical Equipment

THE HARTFORD STEAM BOILER INSPECTION AND INSURANCE COMPANY • Hartford, Connecticut

WASHINGTON BULLETIN

WHAT THE WASHINGTON NEWS MEANS TO MANAGEMENT

Hitting the Line Too Hard

The congressional assault on the price stabilization line is gaining momentum, but the Administration's chances of making a veto stick are frightening. Congress has weakened its hand by overplaying it.

Congressmen who were campaigning ardently for a ban on food subsidies a week ago began to do some belated worrying when the Senate passed the Truman bill raising the wages of more than 1,000,000 railroad employees 8¢ an hour and when the House jammed through the Disney bill hiking crude oil prices a minimum of 35¢ a bbl.

The worry—which isn't keeping many from voting for the bills the first time—that, while the President's arguments against the measures individually would have only flimsy political support to veterans, the triple blast would sound like highly dramatic evidence for his contention that the entire stabilization program is threatened.

Veto Strategy

Nevertheless, the President faces a bitter fight to save his program. Prospects of compromising the subsidy issue before a veto are slim to say the least, and House leaders admit that they can only delay the rail wage measure in hopes of a Presidential settlement of the issue, cannot defeat it if a settlement attempt fails.

If both bills are passed, the White House wants to get a chance to veto the subsidy bill first. Then, before he turned down the wage bill, the President would still labor that price stabilization had been assured by the other veto and—hopes—congressional failure to override it.

So the heat is on to get the subsidy bill through Congress first. Unless new complications crop up, it will go to the White House some time next week—probably in the same form as approved by the House, eliminating all direct consumer subsidies and forcing farm price ceilings up to support levels.

Conversion Problems

Reconversion and its attendant problems are pressing in on the War Production Board and other war agencies from directions (box, page 7).

WPB Chairman Donald M. Nelson is willing to tackle the reconversion job but wants a clear definition of WPB's authority and responsibility.

Executive Vice-Chairman Charles E. Wilson wonders if the approach of next November's elections will turn reconversion into a political circus. Disturbed by this foreboding, and convinced that his original production job is done (BW Nov. 20 '43, p5), Wilson wants to quit Washington, has asked President Roosevelt for his release.

Time Strike Threat

Timing their announcement to greet President Roosevelt's return to Washington, the operating railroad brotherhoods set Dec. 30 as a nation-wide strike date for their 350,000 members. They want Economic Stabilization Director Fred Vinson's ruling, limiting their wage increases to 4¢ an hour, set aside.

The Senate has already passed a bill exempting rail pay from Vinson's jurisdiction and the House was set to follow suit. Administration leaders delayed a House vote until the Executive Branch could get a compromise without legislation.

The brotherhoods' announcement is a move to speed that settlement. No one expects them to be called on to make good on their stoppage threat.

Renegotiation on the Skids

Guided by Chairman Walter F. George, the Senate Finance Committee is doing a very scientific demolition job on the renegotiation of contracts law.

The committee shrewdly avoided voting for outright repeal, knowing Congress would find that hard to take in an election year. Instead, it is trying to get the same result by trimming down the scope of the act and by curtailing the authority of the price adjustment boards.

If the committee stands by its tentative decisions, the final version of the 1943 tax bill will contain at least four amendments that will successfully blow the bottom out of present renegotiation procedure:

(1) It will automatically exempt contracts and subcontracts for all standard commercial articles.

(2) It will exempt subcontracts for articles that do not become a part of the final product—for example, tools.

(3) It will put the recapture of excessive profits on an after-taxes basis instead of before-taxes.

(4) It will forbid renegotiating officers to order a cut in prices on future deliveries.

Victory for Industry

The Senate (and later the House conferees) may tone down the Senate Finance Committee's renegotiation amendments, but the chances are that at least some of them will stick. This will mean a real victory for the industrial interests that have been hammering Congress with requests to abolish or severely curtail renegotiation.

Timken Contract Approved

After Army spokesmen had pilloried the Timken-Detroit Axle Co. as being \$40,000,000 too high on a proposed \$89,000,000 order for heavy-duty truck axles, the War Dept. went into reverse last week and formally approved the contract with protestations of esteem.

The Army charges had received wide and angry circulation. Less attention was paid to Timken's explanation that this was not an \$89,000,000 contract. It pointed out that the figure was a guess as to what the axles would cost via subcontracting, that the government would be given the benefit of any saving, that the contract provides for renegotiation, that the government may cancel if it finds the cost too high before 50% of the order is completed.

The Army behavior in this case has some other manufacturers worried. They take it as evidence that somebody in the War Dept. is trying to smear Timken with charges of profiteering and, thereby, to injure business generally.

A Flexible Price Line

WPB and the new "business" element in OPA (notably, Reagan P. Connelly, consumer goods price chief) have finally won out over OPA's hold-the-line diehards. Victory came in the form of a directive from Economic Stabilization Director Fred M. Vinson which authorizes the price agency to allow increases "beyond the minimum requirements of law" to get adequate production of essential civilian goods.

The directive is broad, but it is principally designed to relieve the present critical shortage of many low-priced textiles. The idea which Vinson has approved is a seeming anomaly—cutting the cost of living by increasing prices.

It involves the disappearance of low-priced lines from the market while manufacturers concentrate on their higher-priced lines. The idea is to up the prices on the missing low-priced lines,



U. S. LUMBER supplies the biggest lumber need of all time. Shell Industrial Lubricants help by keeping vital machines operating at top pitch.

RUSH - 37 billion board feet !

WAR brought huge emergency orders for lumber. In 1942 and '43 over $7\frac{1}{2}$ billion board feet were used for cantonments . . . 15 billion feet for boxes to ship munitions, food and other military essentials . . . 13 billion for warehouses, truck bodies, aircraft and a thousand other uses. In addition, over 2 billion feet have been shipped to our Allies.

Under pressure of war, many machines in the 10-billion dollar lumber industry are kept operating at emergency speed by Shell Industrial Lubricants: Shell Telpex for its diesels, Shell Turbo for its turbines, Shell Compressa for its powerhouse compressors—and other Shell Lubricants used by the lumber industry.

As machines are pushed to the limit, lubrication becomes more difficult. Yesterday's solution is seldom good enough for today.

Constant improvement in Shell Lubricants is a major responsibility of the "University of Petroleum," Shell's research laboratories. Application of these improvements is carried out by Shell engineers in the field.

Are you sure your plant has the benefit of all that is new in lubrication as it develops?



First oil refinery to
win the Army-Navy "E"—
Shell's Wood River Refinery.

Leaders in War Production rely on
SHELL INDUSTRIAL LUBRICANTS



WASHINGTON BULLETIN

(Continued)

by diverting production from high-end goods. Simple, at least theoretically.

The "realistic" WPB-Connally point of view has prevailed over the protests of OPA officials who sorrowfully remember the tough days of Henderson Galbraith, and who have argued that WPB can command production of item by a simple directive.

Shouting Shouted Down

Johnson maintains that many price increases will be absorbed by distributorship or tempered by elaborate "pooling" agreements. Under these, prices of low and high-cost production might evened out; it seems likely that a series of price increases on low-end textures will come on the heels of the

directive. Distributors protest that their absorptive powers are already overtaxed. As for any sort of pooling, it was proposed once—to denim manufacturers—and the cry that went up was too much even for OPA.

Oil Men View With Alarm

Petroleum Administrator Harold L. Ickes' Foreign Operations Committee, a hush-hush outfit handling wartime oil exports and foreign supplies, has made a strong report denouncing government participation in postwar oil activity and mapping a program in which private enterprise would carry the ball, backed by firm government diplomatic support and an international oil compact.

Ickes tried to suppress the report, but

it leaked out. Now the Petroleum Industry War Council has taken him to task for his secret foreign plans.

Ickes maintains that they are merely suggestions for discussion. The oil men are not convinced.

Meanwhile, some oil men on the Petroleum Reserves Corp. staff are souring on their jobs, think the objective of protecting U. S. rights in foreign oil can be met better without government financial and managerial participation.

Trouble on Home Front, Too

The honeymoon between Ickes and the oil industry is about over.

Oil men rallied behind Ickes because he proved a good administrator and avoided many pitfalls of OPA and other emergency agencies—and because he

Reconversion: Signposts on the Road Back

In WPB and allied agencies, grand-scale planning for reconversion and surplus disposal has gone underground, awaiting a glimpse of the official policy that will be laid down by Bernard Baruch and his postwar unit in James F. Byrnes' Office of War Mobilization. But reconversion is not waiting for the planners. On a small scale it is under way already. Now on official desks are questions that must be settled, grand plan or no grand plan. All have implications that extend far beyond the immediate issue.

• **Civilian Goods**—The tentative schedule of the Office of Civilian Requirements for production of a limited number of washing machines in the second quarter of 1944 has brought WPB face to face with the question of maintaining peacetime competitive relationships. Washing machine manufacturers want WPB to restrict initial allocations of materials to companies that had an established place in the field before the war. Although top officials deny the authority and doubt the constitutionality of any such limitations, the story is that WPB industry divisions already have refused materials to some manufacturers—in one case to a firm that wanted to make office staplers—on the grounds that they had no record in the fields they were trying to enter.

• **Price Problems**—Pricing is another headache in the washing machine program. OPA thinks new machines should be priced at prewar levels (like some of the durable goods pro-

duced continuously throughout the war), and it argues that any boost in cost will be offset by the drop in sales expense, which the unlimited demand and very limited supply should reduce almost to zero. Manufacturers are driving for higher ceilings, insisting that initial volume will be too small to pay its way at prices based on mass production—to say nothing of increased labor and material costs.

• **Labor Angles**—The unions are now involved in the reconversion argument. C.I.O. President Philip Murray has asked WPB Chairman Donald Nelson to remove all restrictions on the use of steel for civilian production to "take up the lag caused by the falling off in orders from war procurement agencies." In McKeesport, Pa., steel workers at the National Tube Co. went out on strike when production cutbacks forced two cranesmen to take jobs paying less than their previous wages.

• **Government Surpluses**—Disposition of surpluses owned or controlled by the government is moving out of the penny-ante stage. Prodded by its Redistribution Division, WPB has just relaxed its regulations to permit dealers and wholesalers in civilian goods to buy up excess inventories of fabricated articles or components resulting from termination of war contracts. The new rule gives WPB regional directors authority to waive priorities requirements for purchase of idle material for contractors. Goods that are obtained in this way will not be deducted from the regular

allotment that WPB gives the distributor from normal sources of supply.

• **Trucks for Sale**—The Office of Defense Transportation is keeping a watchful eye on the Army's plans for disposing of obsolete and worn-out trucks. Unserviceable trucks will be sold by the Army's Salvage Division; serviceable machines (1939 models and earlier which will be sold off as they are replaced) will go through the Treasury Procurement Division. ODT will have a hand in specifying which bidders can buy the unserviceable trucks, but it won't be able to do much about the ones that Treasury Procurement sells through competitive bidding.

• **Government Plants**—Secretary of Commerce Jesse Jones has just revealed that the government is sounding out manufacturers to see how much of the government-owned war plant they want to buy. At present the government's stake in war plants, tools, and facilities runs to about \$16,000,000,000, of which Defense Plant Corp., a Reconstruction Finance Corp. subsidiary, holds \$9,000,000,000. Most of the rest belongs to the Army and Navy. First step in the disposal process is to go over the contracts involving all this plant and determine how much of it is subject to options held by private operators, which options the manufacturers intend to take up, what plants the services intend to keep for future emergencies. This survey, according to Jones, is just getting under way.

MUST you make that trip now?

★
*See if Marine Midland
can't help you cut business
travel in New York State*

"Go to Elmira and Binghamton next week," says the memo you wrote to yourself. It may be hard to get accommodations. Traveling gets tougher every day.

Maybe the information you are after can be obtained without your going. Marine Midland Banks in 38 New York State communities can perform a lot of services for executives and their firms outside of the State. They are doing it now to help men like yourself avoid traffic difficulties and save valuable time.

Officers of Marine Midland Banks know intimately local people, local industry and local commerce. Their knowledge may be useful to you. We suggest you check with them.

The
MARINE MIDLAND
TRUST COMPANY
of New York

120 BROADWAY

Member Federal Deposit Insurance Corporation

professed belief in postwar private enterprise with a minimum of government control. Now they suspect that he's shunning their counsel on war programs—that he is ambitious to get the government into the oil business with both feet and to keep it there after the war.

On top of the industry's alarm over Ickes' plan to put his Petroleum Reserves Corp. directly into foreign oil operations, a report is current that the Petroleum Administrator is scheming to set up another government corporation to go into the domestic oil business. This agency would develop oil on the public lands (possibly taking over leases of private interests) and would take over all Army and Navy oil operations (page 34), including naval petroleum reserves.

Ickes is said to be pressuring the Army and Navy to foster this plan, using the argument that they would thus be relieved of such problems as Canol (BW Dec. 4 '43, p20) and Elk Hills.

"Noninflationary" Price Rise

Oil men who have battled for a 35¢ hike in the price of crude now claim they have a noninflationary method of raising the ceiling.

They hope that Economic Stabilization Director Fred Vinson will swallow it even if Congress doesn't force him to do so. It figures out to about the same thing (35¢) in the end, but it has the validity of indirection, a characteristic of official departures from the President's hold-the-line order.

The oil men's method would tie oil prices to an index to be maintained at not less than 80% or more than 100% of "parity" with the Bureau of Labor Statistics commodity price index on the 1926 basis. This would give OPA the theoretical alternative of pushing other prices down instead of raising oil prices.

WPB on the Fence

Arthur Whiteside, chief of the Office of Civilian Requirements, is writing a report recommending that WPB allow machine tool builders to produce tools for the automotive industry.

Both the tool industry and the automobile industry have been trying to get high priorities on the large volume of tool orders placed by the latter. Most WPB heads hesitate to take action now because it might raise the public's hope for new cars prematurely.

But they also have to face the prospect that if their inaction delays the auto industry's reconversion to normal production, causing an intensification of expected unemployment, WPB will come in for severe criticism.

WHAT HAPPENS TO REFUNDS

Here are the facts on that much-debated question of whether or not the services can spend the money they recover through contract renegotiation—an argument that keeps popping up in the current congressional battle over the tax bill.

There are two kinds of recoveries: (1) actual cash refunds by the contractor representing the return of part of the price of goods already delivered and paid for; (2) reductions in the contract price of goods to be delivered in the future.

Cash refunds go directly into the miscellaneous receipts account of the Treasury, and the services never see them again. Cuts in the price of future deliveries free a corresponding amount of the services' appropriations; in most cases, the services have legal authority to spend the amount saved on something else.

Both Army and Navy have promised congressional committees that they will deduct recoveries of this sort from future requests for appropriations.

Recoveries by all contracting agencies through Nov. 1 total \$5,377,000,000. Of this, \$2,872,000,000 represented price reductions on future deliveries, \$2,500,000,000 cash refunds.

Capital Gains (and Losses)

Republican bigwigs in Congress show no disposition to scoff at the announced Presidential candidacy of Everett M. Dirksen of Illinois. They think he might make a good dark horse if Dewey and Willkie deadlock in convention. That, obviously, is what Dirksen himself has in mind.

OPA may countermand orders for new ration tokens and change specifications to soothe vending machine operators who have been complaining that the new dime-size tokens would drop through the slot and then stick, putting their machines out of commission.

Manufacturers working under Controlled Materials Plan here will find the familiar CMP classification product list in WPB's monthly publication "Products & Priorities." WPB is discontinuing the list as a separate booklet.

—Business Week
Washington Bureau

FIGURES OF THE WEEK

THE INDEX (see chart below)

INTRODUCTION

	\$ Latest Week	Preceding Week	Month Ago	6 Months Ago	Year Ago
Steel Ingot Operations (% of capacity).....	99.3	99.3	97.8	97.8	98.4
Production of Automobiles and Trucks.....	18,730	17,880	19,300	19,065	17,835
Engineering Const. Awards (Eng. News-Rec. 4-week daily av. in thousands).....	\$6,528	\$8,360	\$8,656	\$11,618	\$14,343
Electric Power Output (million kilowatt-hours).....	4,567	4,560	4,483	4,040	3,938
Crude Oil (daily average, 1,000 bbls.).....	4,377	4,384	4,436	3,988	3,881
Bituminous Coal (daily average, 1,000 tons).....	2,108	2,147	499	524	1,889

TRADE

	83	84	83	81	76
Miscellaneous and L.C.L. Carloadings (daily average, 1,000 cars).....	83	84	83	81	76
All Other Carloadings (daily average, 1,000 cars).....	61	+62	42	41	51
Money in Circulation (Wednesday series, millions).....	\$20,135	\$19,940	\$19,514	\$17,237	\$14,986
Department Store Sales (change from same week of preceding year).....	+7%	+13%	+10%	+2%	+10%
Business Failures (Dun & Bradstreet, number).....	40	35	30	54	132

PRICES (Average for the week)

	246.9	245.8	243.8	244.8	235.3
Spot Commodity Index (Moody's, Dec. 31, 1931 = 100).....	246.9	245.8	243.8	244.8	235.3
Industrial Raw Materials (U. S. Bureau of Labor Statistics, Aug., 1939 = 100).....	160.7	160.4	160.5	159.8	155.8
Domestic Farm Products (U. S. Bureau of Labor Statistics, Aug., 1939 = 100).....	217.3	214.1	212.5	208.7	190.5
Finished Steel Composite (Steel, ton).....	\$56.73	\$56.73	\$56.73	\$56.73	\$56.73
Steel Composite (Iron Age, ton).....	\$19.17	\$19.17	\$19.17	\$19.17	\$19.17
Copper (electrolytic, Connecticut Valley, lb.).....	12,000¢	12,000¢	12,000¢	12,000¢	12,000¢
Wheat (No. 2, hard winter, Kansas City, bu.).....	\$1.61	\$1.60	\$1.55	\$1.38	\$1.27
Sugar (raw, delivered New York, lb.).....	3.74¢	3.74¢	3.74¢	3.74¢	3.74¢
Cotton (middling, ten designated markets, lb.).....	19.71¢	19.48¢	19.78¢	21.10¢	19.60¢
Wool Tops (New York, lb.).....	\$1.314	\$1.285	\$1.266	\$1.354	\$1.203
Rubber (ribbed smoked sheets, New York, lb.).....	22.50¢	22.50¢	22.50¢	22.50¢	22.50¢

FINANCE

	91.1	89.8	89.1	95.4	74.8
Stocks, Price Index (Standard & Poor's Corp.).....	91.1	89.8	89.1	95.4	74.8
Medium Grade Corporate Bond Yield (30 Baa issues, Moody's).....	3.83%	3.84%	3.84%	3.89%	4.30%
High Grade Corporate Bond Yield (30 Aaa issues, Moody's).....	2.74%	2.74%	2.71%	2.72%	2.81%
U. S. Bond Yield (average of all taxable issues due or callable after twelve years).....	2.34%	2.34%	2.32%	2.30%	2.36%
Call Loans Renewal Rate, N. Y. Stock Exchange (daily average).....	1.00%	1.00%	1.00%	1.00%	1.00%
Time Commercial Paper, 4-to-6 months, N. Y. City (prevailing rate).....	1-1%	1-1%	1-1%	1-1%	1-1%

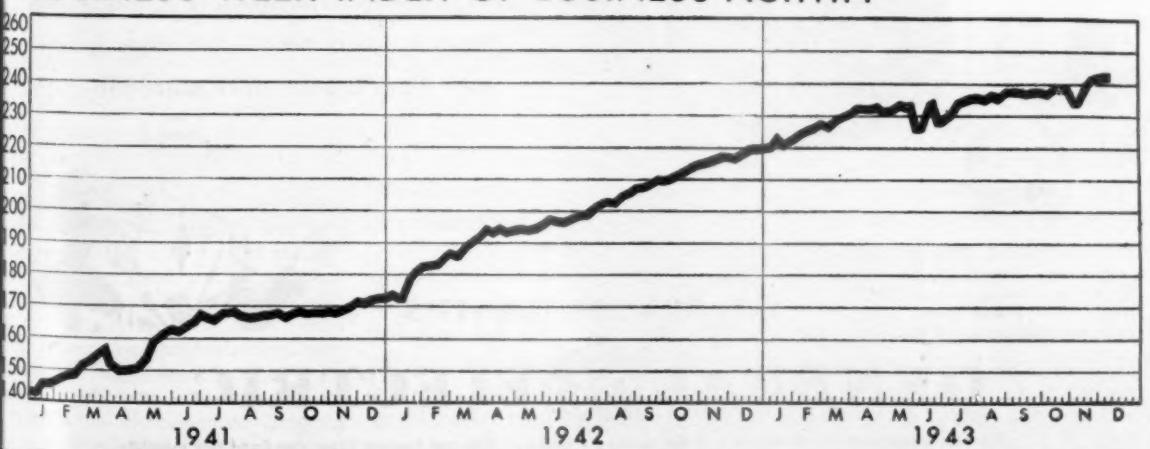
BANKING (Millions of dollars)

	34,075	33,651	32,039	32,061	29,011
Demand Deposits Adjusted, reporting member banks.....	50,535	51,166	52,051	46,808	38,444
Total Loans and Investments, reporting member banks.....	6,395	6,379	6,451	5,637	6,404
Commercial and Agricultural Loans, reporting member banks.....	1,986	2,082	2,437	1,448	1,134
Securities Loans, reporting member banks.....	36,823	37,341	37,732	34,141	24,843
U. S. Gov't and Gov't Guaranteed Obligations Held, reporting member banks.....	2,786	2,800	2,836	3,077	3,297
Other Securities Held, reporting member banks.....	920	1,100	1,080	1,514	2,804
Excess Reserves, all member banks (Wednesday series).....	11,540	10,874	10,231	6,998	5,813
Total Federal Reserve Credit Outstanding (Wednesday series).....					

† Revised.

§ Date for "Latest Week" on each series on request.

BUSINESS WEEK INDEX OF BUSINESS ACTIVITY



What's ahead in FLUORESCENT LIGHTING?

HERE are some of the things that General Electric scientists, now busy on many military wartime lighting problems, see ahead for fluorescent lighting.

FASTER STARTING — much greater uniformity—no blinking when tubes burn out.



STAY BRIGHTER LONGER through better maintenance of light output for the rated life of the tube.



IMPROVED COLOR QUALITY, thanks to new and better phosphors which cover a broader spectral range.



Hear the General Electric radio programs: "The G-E All-Girl Orchestra", Sunday 10 p.m. EWT, NBC; "The World Today" news, every weekday 6:45 p.m. EWT, CBS.

BETTER LAMP PERFORMANCE and appearance throughout life as a result of new type of cathode construction.



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BETTER FIXTURES . . . easier to install . . . for home, store, office, school or factory use . . . through G-E's cooperation with the fixture industry.



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THE OUTLOOK

Pushing at the Peak

Index rises, but it's not a new uptrend. Transport gets more equipment, less manpower. Coal and lumber tighter. Record of munitions gains throws light on current "easing."

In the past eight weeks, Business Week's Index has advanced over five points to a new record of 243.7. That is a 2% rise, but even so, it does not suggest a new uptrend—a break from the stable level established in the summer (chart, page 11).

The same forces still operate—a rise in war lines and a decline in civilian lines within a context of general labor shortage. From month to month, one may outweigh the other.

There's also a statistical reason. Carloadings usually decline during the winter, and the Index corrects for that seasonal drop. But, increasingly, shipments have been deliberately shunted away from the peak season so as to avoid transport tie-ups. From an October peak-week of over 900,000 to the beginning of December, carloadings normally drop by 135,000; this year they'll only 50,000.

In effect, war has thrown the seasonal correction slightly out of kilter. The correction pared the Index a trifle in September and October, boosts it now, and will cut it a bit in later weeks. Upon mobilization, transport will resume its seasonal pattern.

More Home-Front Transport

Warning against "incalculable repercussions on our war effort" from "even diminution in transportation service," the Truman committee this week recommended larger allocations of new road, truck, and aircraft equipment to domestic transport, on top of the increases already scheduled, for which the committee claims partial credit. In particular, it asked a cutback in the program to provide the Army and allies with 700,000 new trucks (page 1) which, because of components and labor shortages, may well interfere with completion of the additional but limited domestic truck program.

Railroads are already getting more fuel for rail and other repairs, and they've allotted 50,000 new freight cars for 1944; 30,000 of them will be all-steel. Though more may be made available later, the carriers are reluctant to load on wartime equipment unless they're permitted rapid amortization.

Railroad problems now really center on manpower. Employment dropped in November, and in four months,

Class I roads have lost 25,000 workers—2% of their labor force. With the drain continuing, the labor pinch on the roads may be severe by next spring, when demand for freight movement will again be up sharply from winter lows.

Further belying optimism on manpower, employment is still declining at coal mines, in the forests, and in other key industries.

Lumber and Coal

The lumber shortage, indeed, is partly responsible for the decision to switch from part-wood to all-steel freight cars, 30,000 of which might absorb 500,000 tons of otherwise idle metal.

Coal troubles were highlighted by this week's announcement of anthracite ra-

tioning. In bituminous, the shortages are, as yet, localized.

Meanwhile, Donald Nelson reported another gain in war output, pushing the November munitions index to 665, compared with 100 in November, 1941.

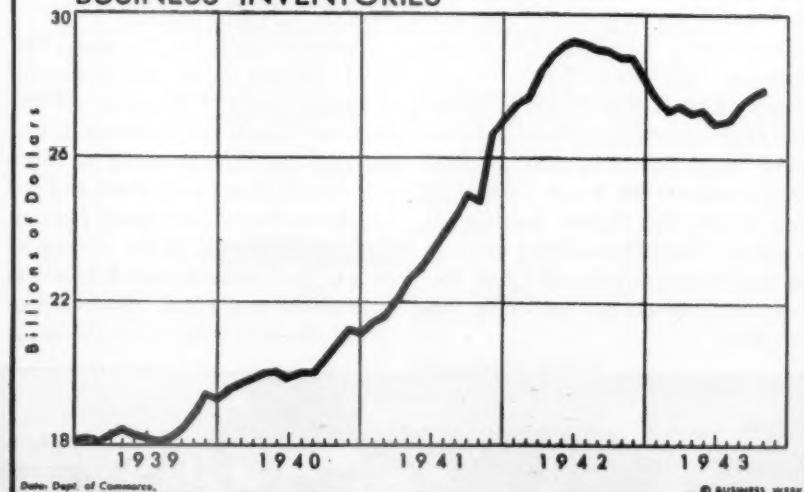
Whatever else it may be, much of the current talk about a major easing in the war effort represents a psychological let-down from the belated recognition that we are close to our peaks.

The Munitions Record

Examine the munitions record. By November, 1942, the index was at 450—a gain of 350 points from the Pearl Harbor level. Even then, Business Week remarked "war production is really coming into its own; output peaks are in sight" (BW—Nov. 21 '42, p13). In this second year of war production, we have added only 215 points.

At that, 115 were gained by April. Then it was clear that further "gains in armament will be moderate" (BW—May 15 '43, p13). The slowness of the summer rise created cries of "complacency," but, even so, by August the munitions index

IN THE OUTLOOK: BUSINESS INVENTORIES



The recent upturn in manufacturing and trade inventories reflects temporary influences, does not signify a change in trend. Christmas and winter consumer goods were ordered and made earlier than usual this year; such stocks are being sold off right now. Also upgrading to higher-priced civilian lines has lifted inventory values; steps to halt this are under way (page 5). In war industries, manpower bottlenecks backed materials up in stocks; now labor is being better dis-

tributed. With total economic activity flattening out, minimum essential inventory needs won't rise. And controls over war materials and excess demand for consumer goods will offset any attempts at protective inventory buying. What's more, as victory approaches, business will seek to rid itself of wartime goods that are inferior to or unusable for peacetime production, and—as soon as it can—to rebuild peace goods stockpiles (The Trend, page 116).

was up another 50 points, and we were obviously "now in a stabilizing phase" with "war programs close to their ceilings." "A peak rate in early 1944, a little more than 100 points above August" was foreseen. We have now achieved 50 of those points.

As we've got closer to the limits of our resources, successive gains have actually become smaller and smaller. But now that we feel we can reach up and touch the peak, the pressure seems all at once to drop. Much of the apparent easing is because we have licked many problems;

manpower is less troublesome because in many areas, hiring has been controlled, war contracts have been shifted and labor utilization has been improved.

But, that we have less to increase less more to do—doesn't mean we have less to do.



HOME-FRONT BATTLE

Defenders of food subsidies are at battle stations on Capitol Hill, while skirmishes against mounting prices are increasing on the shoppers' front. In Washington, labor's representatives and spokesmen for consumers' groups (above right), Elisabeth Christman, National Women's Trade Union League; Mrs. Gladys Wyckoff, American Home Economics Assn.; and Caroline Ware, American Assn. of University women (left to right), put their case before the Senate Banking & Currency Committee during hearings on the Commodity Credit Corp. life-extension bill—crux of the whole subsidy issue.

A second sounding board for consumer forces was a conference called by the "Congressional Committee for Protection of Consumers" (BW—Nov. 20 '43, p8), headed by Rep. Thomas E. Scanlon (above left), supported by Reps. William Rowan and John Coffee (right to left).

Delegates such as Dr. Mary McLeod Bethune (below right), director of Negro affairs of the now defunct National Youth Administration, uniformly argued the necessity of subsidies to keep living costs down and put a brake on the inflation spiral, but outspoken Walter Reuther, vice-president of the United Automobile Workers, took a stronger tack. He attempted to link the issue with war profiteering,

charging that food manufacturers "making the greatest profits in the history"—had tried to team up with the three big antisubsidy farm groups—National Grange, Farm Bureau, and Farmers Cooperative.

Meanwhile pro-subsidy parades Chicago (BW—Dec. 11 '43, p82), and baby coach picket lines in New York Bronx—reminiscent of High Cost Living demonstrations of the last year—are on the rise. Organized by United Housewives, the pickets, with frank signs, appear in front of price violators' stores on complaints of shoppers. Few housewives have the merit enough to cross the lines; shopkeepers have enough stamina to withstand such public pressure.



War Output: 1944

Current cutbacks don't mean rapid reconversion; arms production must go up 5% over scheduled rate in present quarter and monthly rate, around midyear, may be up 10%).

Last week's meeting of the National Assn. of Manufacturers (page 17) produced Charles E. Wilson, WPB's vice-chairman and production chief, with at the forum he wanted for warning against false optimism as to the war effort. It was his chance to put in clearer focus the facts about contract cutbacks and cancellations as against rumors of them—rumors which, nonetheless, refuse to down in either industry or government circles.

Made to Be Changed—Nub of the situation is that war output, as now scheduled, still has to go higher to reach its goals.

Yet any realist knows that the goals will not stand throughout the year. A sharp cut would follow defeat of Germany; substantial reductions could be made after an altogether successful landing on the continent of Europe; if it should become clear that the Reich is tottering, important cancellations might be made even before invasion.

Furn Has Not Yet Come—The cutbacks that are now being made, however, are not a part of that pattern. These have been planned and fully allowed for; in and of themselves, they do not reduce the goals as now set up. On the contrary, many vital weapons must still be turned out in greater quantities than ever; on balance, these boosts slightly outweigh the cutbacks.

Tricky Statistics—More than that, the sole comparison between current output and the goals posted for 1944 rests on a statistical basis that is confusing if not understood.

Wilson starts with the goals for the final quarter of 1943; then he lists the schedule for 1944 in terms of percentage gains or declines from this base. Yet must be remembered that industry is not quite meeting its fourth-quarter, '43, schedule. That means 1944 goals are a shade higher than they look.

In addition, the 1944 schedule is an average for the year. Early months next year will run below this average. Thus the midsummer peak must be above average to make up the difference. All told, to hit schedules, munitions output in mid-1944 would have to be up perhaps 10% from the output in the last quarter of 1943—instead of the 5% indicated by Wilson for the full year.

Internal Shifts—This 1944 projection, as has been noted, allows for cutbacks that already have closed plants or caused layoffs, and it reflects shifting emphasis in the program for the months to come. Thus, while small arms ammunition is

to go down, artillery ammunition is due to rise; instead of tanks, we want trucks; instead of destroyer escorts, invasion barges; instead of bomber plants, the bombers themselves. Indeed, the need for efficient shifting is what stands out now in the production picture.

When men and materials are released by cutbacks, the job is to get them back to making other needed weapons in the shortest possible time. When that isn't feasible, they may be used to speed the trickle of essential civilian goods and industrial equipment.

Already the War Manpower Commission has made arrangements to provide labor for the fabrication of essential civilian goods in cases where the workers cannot readily be shifted into war work. And the War Production Board is reported to be preparing to force manufacture of the most vital civilian supplies.

• All-Important Timing—Always in the background is the question of how dras-

tically the goals may be altered by military events. On this depends the timing—and depth—of the cutbacks.

Initial goals for 1944, dictated by the armed forces, allow little or nothing for probable successes within the year; Washington thinking, quite as obviously, allows a good deal.

Wilson himself, while stressing the over-all increase in goals, remarks that "these schedules are constantly under review," and "I believe that, in general, subsequent revisions will not be upward." (However, in the case of falling naval shipbuilding, he said, "There is reason to think that subsequent developments may cause the current levels to be maintained.")

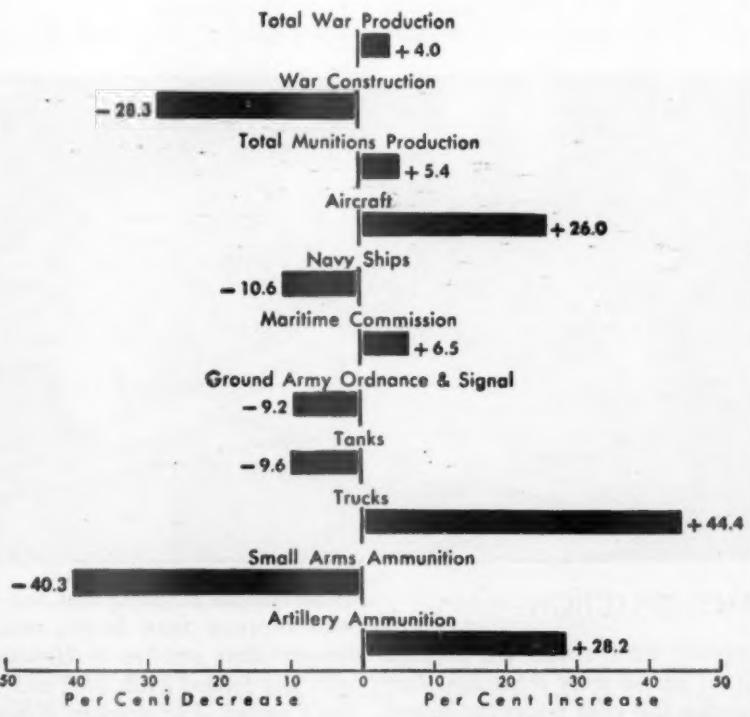
• The Basic Needs—For all the blithe pointing to bulging Army warehouses of certain weapons—since cut back—there is no denying the need for blasting entrenched Nazi positions with bomb and shell, for landing the largest amphibious force in all history, and for outmatching the enemy's new weapons every step of the way.

The Army and Navy will permit no over-all cutback of the arms program until they are sure that, in so doing, they are not gambling with lives. Best bet is that this will not be until after the invasion.

SHIFTS IN 1944 WAR PRODUCTION

Based on present schedules—which military successes can alter vitally—total output will continue to rise because boosts exceed cutbacks

Percent increase or decrease in scheduled output next year as compared with annual rate for last quarter of 1943



Data, War Production Board.

© BUSINESS WEEK

West Eyes Steel

Halting of work on one unit of Utah steel plant raises an anxious question as to industry's future on the Coast.

The Defense Plant Corp., under instructions from the War Production Board, has stopped construction of one unit in the \$180,000,000 iron and steel development at Geneva, Utah.

This cutback brings into the open the question: Where does the Far West's steel industry, swollen to three times its prewar size, go from here?

• **Ingot Capacity Unaffected**—The stop order affected only one plant, designed to produce structural steel shapes at the rate of 250,000 tons a year. It did not trim the Geneva Works' projected steel-making capacity of 1,308,000 tons a year. But it did provoke speculation among steel men about how much of this new steel capacity ever would be utilized.

Some pessimists suggested the answer would be none, or virtually none, in the predictable future. Abandonment of the structural mill gives Geneva a 20% oversupply of ingot capacity as compared with its finishing facilities. This indicates WPB has no present plans for Geneva to reach capacity output.

• **Short vs. Long Term**—Present circumstances support the pessimists. Unless there is an unprecedented postwar boom in the West, or an unexpectedly good market for steel in the Orient, the short-term outlook in Far West steel indicates a severe cutback in total capacity.

But the long-term outlook, based on equally tangible circumstances, favors a prediction that western steel will experience a long period of expansion.

Generalized into round numbers, Far West steel capacity totaled 1,000,000 tons a year before the war, and 3,500,000 tons as this year ends. Allowing for a processing loss between ingot and finished steel, the market west of the Continental Divide could absorb this capacity.

• **Markets Are Specific**—But there's the rub. The markets for steel are not general, but specific. Steel has to be rolled, shaped, drawn, and cut into marketable sizes. The Far West's new steel capacity has been tailored severely to fit the demands of West Coast shipbuilding, which now builds about 40% of the current United States tonnage. No provision has been made to convert this new steel capacity into steel that will exactly suit postwar manufacturers.

• **Utah Survey**—In a study published by the University of Utah in June, J. R. Mahoney, director of its Business Research Bureau, concluded that if the Geneva Steel Works is to operate successfully in a postwar market, it should have not only the now-abandoned structural mill, but also \$30,000,000 of rolling equipment, seamless hot mill, and electric furnaces.

As now constituted, the Geneva Works includes four batteries of coke ovens, 63 ovens to the battery; three blast furnaces, 1,200 tons daily capacity each; nine openhearth furnaces, with combined capacity of 2,025 ingot tons daily; and a continuous 132-in. plate mill, with annual capacity of 700,000 tons. The structural mill is said to be half completed. Coke production began

this week. Full steel production scheduled for March.

• **More Pig at Provo**—Before the war the West's only blast furnace was gorging some 500 tons of pig iron daily at Provo, Utah, which now has added Geneva to its industrial orbit. The furnace's owner, Columbia Steel, subsidiary of U. S. Steel, has its finishing mill at Pittsburg, Calif., near San Francisco. This year a 900-ton blast furnace has been added to the Provo works, but no steel capacity.

The Geneva Works was constructed by Columbia, is now managed by a new U. S. Steel subsidiary, Geneva Steel Co., on a no-profit, no-fee contract for DPL.

In adding up Far West steel facilities, Colorado, with 1,127,850 tons annual capacity at Pueblo, is not considered. At the end of this year, Far West's total capacity is rated at 3,385,760 tons, including 1,805,360 for California, 1,300,000 for Utah, 242,400 for Washington, and 30,000 for Oregon.

• **Kaiser Is Integrated**—The West's first integrated iron and steel operation were launched at Fontana, east of Los Angeles, this year, when Henry Kaiser's blast furnace began production. Kaiser's structural mill is reported 70% completed, and he has successfully squelched all suggestions to cut back his Fontana works, with capacity about that at Geneva.

After rounding up the prospects for postwar steel sales in the eleven western states, one California steel man figures it may break down to 229,000 tons a year of steel plate; 427,000 tons of sheet and strip; 494,000 tons of tinplate; 185,000 tons of concrete reinforcement bars; 202,000 tons of other merchant mill products; 158,000 tons of structural shapes and sections; 190,000 tons of railroad products; 470,000 tons of tubular products; and 215,000 tons of wire products.

• **More Steel Products**—This adds up to 2,570,000 tons. If these estimates of future markets come true, excess capacity would approximate the capacity of the Geneva Works. However, more optimistic estimates are possible, considering that output of steel products has increased 45% in San Francisco, 300% in Los Angeles, and 100% in the Portland-Seattle area since war began.

A number of circumstances logically favor a long-term expansion of western steel.

• **Vast Coal Reserve**—Principal factor indicating expansion is a great underground reserve of coal in a tristate area including corners of Colorado, Wyoming, and Utah. Mahoney stated it is probably the world's greatest coal reserve, concentrated within 300 miles of Geneva, and containing 60% of all the coal of the eleven western states, and 17.3% of world coal reserves.

Iron ore reserves of the area are estimated at 40,000,000 tons, but exploitable



SALES REFLECTION

Outgoing mail chutes at Chicago (above) and in every other American postoffice this week reflect the biggest Christmas shopping spree in history.

With millions of service men and war workers away from home, mail is heavier than ever as dollar-volume sales soar toward levels 10% over last year's record. For retailers, it means serious inventory depletions.

tion has been insufficient to make this a limit.

• **Ore Analyses Compared**—Mahoney compiled typical analyses, showing principal components that blast furnace men must take into account, of Birmingham (Ala.), Mesabi or Lake Superior soft ore, and Utah ore as follows:

Ore Makeup	Birmingham	Mesabi	Utah
	%	%	%
Iron	36.64	52.07	56.00
Silica	15.05	7.64	7.00
Alumina	3.15	...	1.00
Lime	15.09	...	4.00
Manganese	0.17	0.64	0.196
Phosphorous	0.33	0.06	0.20
Water	2.07	11.45	3.00

Citing predictions that best grades of Lake Superior ores may be exhausted in the next 15 to 20 years (BW—Sep. 6 '43, p65), Mahoney made two other comparisons favorable to Utah ore: It will encounter a tax under 5¢ a ton as compared with taxes totaling 50¢ to 75¢ a ton for Minnesota ore; and Utah ore is more easily and cheaply mined than deep ore in Alabama, which also contains less iron.

• **Cheaper Pig Iron?**—Mahoney concluded from other studies that production cost of pig iron in Utah is less than in plants around Pittsburgh, Chicago, Cleveland, and other centers that depend on Lake Superior ores but about the same as in Birmingham. His figures in material cost per ingot ton: Utah, \$10.85; Birmingham, \$11.40; Gary, \$15.56; Pittsburgh, \$14.21.

Because most western pig iron is consumed on the Pacific Coast, Mahoney's freight rate comparison also illuminates a competitive situation. From Provo to the Coast the rate on pig iron is \$4.95; from Birmingham, \$13.70; from Gary, \$11.44; from Pittsburgh, \$15.41. Combining the figures, pig iron from Utah would cost \$15.08 delivered to the West Coast without profit and handling expense; from Birmingham, \$25.10; from Gary, \$27.00; and from Pittsburgh \$29.62. Water rates from Sparrows' Point, Md., and Mobile, Ala., would cost as much as \$5.21 a ton.

• **Prices Are Higher**—Selling prices of finished steel on the West Coast now run 50¢ to 65¢ a pound more than in representative eastern producing centers. Prices of scrap, conversely, run \$14.50 a gross ton on the West Coast against \$20 in Pittsburgh and \$19.50 in Cleveland.

Postwar competition will tend to bring these margins closer together. Far West steel has decided advantages in its own market, but this market may not absorb this capacity, and the market east of the Continental Divide which buys about 96% of total ingot tonnage is now closed by a freight rate structure which is geared to the traditional movement of steel from East to West.



Featured at the National Assn. of Manufacturers' Second War Congress were government and industry spokesmen, among them (left to right) Joseph B. Eastman, Office of Defense

Transportation director; Lamont du Pont, chairman of E. I. du Pont de Nemours & Co.; and Charles E. Wilson, vice-chairman of the War Production Board.

N.A.M. Sets Pace

Manufacturers' convention debates reconversion—plant, political, and economic. Sets program for postwar America.

The conviction that it has a positive program for the postwar development of the United States will be the mainspring of industry's political and economic policy from now on. This became evident at the Second War Congress of the National Assn. of Manufacturers which has just given formal statement to industry's program.

• **Looking Ahead**—Almost without exception, the 4,000 manufacturers who crowded into the Grand Ballroom of New York's Waldorf-Astoria Hotel on Dec. 8, 9, and 10 were thinking about the opportunities and dangers that will face them when they start converting their industries from wartime to peacetime business. In discussing the future, its promises, and its threats, they automatically built up a strong evangelical spirit.

While war production shared equal billing with postwar problems on N.A.M.'s program, few manufacturers are really worried about the headaches of war production any more. At the N.A.M. convention, they were looking beyond the war to the inevitable conversion period and beyond that to the time when the more or less stable pat-

tern of the postwar economy will emerge.

• **Girdler Sounds the Theme**—The post-war theme with all its major overtones appeared shortly after the convention opened. Tom M. Girdler, chairman of Consolidated Vultee Aircraft and of Republic Steel, stated it on the morning of the first day:

Before us will loom the staggering task of converting plants to production of peacetime goods, of finding jobs for millions of returning soldiers, for people now making war materials, and of helping in the work of world rehabilitation and reconstruction.

The reconversion of our industrial equipment is not in itself an unsurmountable undertaking. What industry has done once it can do again—probably with even greater efficiency. Before too long, industry will be ready to perform its appointed peacetime tasks.

What is a matter of prime importance is the economic and political atmosphere in which industry will function in the post-war period.

• **Crawford Sums It Up**—After letting Girdler's point sink in for 24 hours, Frederick C. Crawford, president of Thompson Products and retiring president of the N.A.M., followed it up with what was the real keynote speech of the convention phrased in a football metaphor.

Playing in the people's ball park, said Crawford, is the home team—management the backfield, labor the line. Opposing it is the age-old enemy—unemployment, hunger, poverty. The home team, Crawford declared, can win only if the umpires—that is to say, the gov-



Uniforms—such as that of Lt. Gen. William S. Knudsen (left)—rubbed shoulders with multi—Walter Geist, president of Allis-Chalmers Mfg. Co., for example—during the National Assn. of Manufacturers' Second War Congress



last week at New York. Even coveralls made their appearance as Mrs. Mary Snader, Firestone Tire & Rubber's first woman tire builder, was congratulated by the company president, Harvey S. Firestone, Jr. (above).

ernment officials—give it a fair administration of the rules instead of putting obstacles in its way.

The N.A.M. did not rest its case solely on parables, however. In plain language Crawford stated his program this way:

As never before, the people need leadership—strong leadership, courageous, honest, bold, and sincere. Through our war production, the American people have developed profound respect for the leadership of American industrial management in war industry.

Industry has a program. It is a program for a better America. . . .

This program means full production under a system of complete free choice. . . .

This plan means freedom for the American worker, freedom to quit one job for another, freedom to strive for higher wages. . . .

This program means the right for capital, big and small, to invest, to risk savings in new enterprises; to back the inventor. . . .

This program means the right for American managers to plow profit back into their business in better machines, better methods, striving always for lower cost, so that goods may be sold cheaper to the American people, wages raised, and a larger return assured to capital.

• "Three Big Obstacles"—in other words the N.A.M., speaking in the name of industry in general, offers to lead the country to full production and full employment—provided that first certain major obstacles are removed. The three big obstacles, as Crawford named them are: (1) the present tax system; (2) impediments to capital formation (ploughed-back profit); (3) government-promoted impediments to understanding between management and labor.

Once Crawford had presented the theme, other speakers developed it. On

the last day, the Resolutions Committee brought out a six-point platform putting it in formal language: (1) Work together; (2) make government one of laws not men; (3) develop new frontiers; (4) reward accomplishment; (5) restore constitutional government; (6) establish and maintain peace.

• **Sloan's Challenge**—At the final dinner on Dec. 10, Alfred P. Sloan, Jr., chairman of General Motors, buttoned up the subject with his address entitled The Challenge:

The challenge presents what I believe to be an opportunity—an opportunity to capitalize in the long-term interests of the country as a whole a set of circumstances that in all probability will develop out of the war.

This was the thought that the 4,000 delegates took home with them. Through the rest of the war and the reconversion period, it will be one of the big factors governing the policies of the N.A.M. and of the various manufacturers as individuals.

• **Labor Alliance?**—In addition to the main theme, however, the conferees had many other things to think about. One was the possibility of a working alliance between management and labor, aimed at throwing off government controls. The imposition of wartime regulations has created at least a talking point for employers who would like to have labor in their corner when dealing with Washington.

Several features of the N.A.M. program encouraged the idea. A particularly notable one was the precedent-setting panel in which Philip Murray, president of the C.I.O., and William Green, president of the A.F.L., discussed jobs in peacetime with Crawford and Paul Hoffman, president of Stude-

baker and chairman of the Committee for Economic Development. Another labor event was a "salute to war workers," bringing before the delegates a blind worker, a Civil War veteran who holds a Second World War job, and an employee with a 37-year attendance record. There was also a presentation of women in war work. Manufacturers applauded this vigorously, just as they did when William Green declared during the job-panel session that after the emergency, women should vacate their jobs and go back to being wives and mothers.

• **Industry and Government**—Another matter that manufacturers were turning over in their minds when they left the N.A.M. meeting was the question of just what their collective political position should be. On this there was something less than unanimity. Charles E. Wilson, vice-chairman of the War Production Board, pointed up the trouble when he told the convention:

I tell you frankly that I am deeply alarmed today over the possibility that a right-wing reaction may draw some sections of capital so far away from our traditions as to imperil the entire structure of American life as we know it.

To most of the convention delegates, Wilson's point made sense. After twelve years more or less of being at odds with the government, most manufacturers would like to find a middle ground and are, at least, willing to meet a new Administration half way. Only a few still think a no-compromise-with-government policy is practical. It happens, however, that those few are influentially placed, and, as a result, a good many stresses and strains can be felt behind the solid front of industry.

Sugar Gets Tighter

Failure to buy molasses led to Cuban liquor boom; we can't get it, and we have no sugar for war alcohol.

sticky government mess of blackstrap, invert molasses, and raw sugar threatens to hamper the war alcohol program and prevent an increase in civilian and industrial sugar ration. War Food Administration contends Prentiss Brown, just as he stepped off the picture as OPA chief, should have declared the "Christmas bonus" to industrial users by increasing ration from 80% to 90% of their consumption.

Blackstrap Bottleneck—WPB and officials insist that the core of the trouble is the failure to have bought 1944 Cuban production of blackstrap molasses last summer, when the Cubans would have been happy to sell 200,000,000 gal. at 12¢ a gal.

Now the Cubans aren't interested in selling any blackstrap at all. They get more than five times as much money for stuff shipped to the mainland in the form of beverage alcohol, gin, and rum (See Aug. 14 '43, p20). Unable to get blackstrap or its equivalent in industrial alcohol, WPB is forced to require an increase in the manufacture of invert high-test molasses for use in the production of war alcohol.

Process Uses Sugar—The "invert" is made from cane that would otherwise be turned into sugar, whereas the blackstrap is a byproduct of the manufacture of sugar. Less blackstrap, more invert; less invert, less sugar.

A government delegation will go to Cuba soon to try to clean up the mess. It will open conversations with a request that Cuba produce 5,200,000 tons of raw sugar in 1944, of which 1,000,000 tons would be in the form of invert.

The Past Record—This compares with 5,000 tons of raw and no invert last year. Production totaled 4,500,000 tons in 1942 when the U. S. bought 3,600,000 tons and the Cubans used more than 700,000 tons for invert in addition. Last production of record was 5,857,000 tons in 1929.

The request for 5,200,000 tons of raw sugar is supposed to sweeten the Cuban situation, although it is not expected that Cuba can produce as much as 5,200,000 tons in 1944. They probably can't produce more than 4,800,000 tons without turning into their 20% reserve of standard cane.

Cubans Displeased—Moreover, the Cubans still chafe from the treatment their sugar commission received last summer when they were persuaded to sell to the Commodity Credit Corp. a minimum

of 4,000,000 tons of 1944 sugar at 2.65¢ a pound with an understanding that the residual blackstrap would be bought at a fair price by the Defense Supplies Corp.

The Cubans said their costs of production had increased over 1943 when they sold 3,000,000 tons to Commodity Credit at 2.65¢ a pound and that they needed at least 12¢ a gallon for the blackstrap to break even. But Defense Supplies offered only half this price for the molasses, and the Cubans walked out. They came back once or twice, but the two groups still couldn't agree.

Hit the Jackpot—All this was before either Cubans or Americans had any inkling of the liquor drought in the U. S. that was to prove a bonanza for Cuban alcoholic beverages. Now the DSC would gladly pay close to 14¢ a gallon for blackstrap, but the Cubans are too busily engaged in converting it into beverages.

The liquor is being made in every

available shack and shanty under conditions which would not be tolerated by sanitation officials in the U. S.

Production capacity has jumped from 35,000,000 gal. of proof alcohol a year to close to 75,000,000 gal.

It Could Be Curbed—A fly that may ultimately get into the Cuban molasses, however, is a proposed WPB amendment to Control Order No. 69, to restrict the importation of Cuban liquors. The Cubans themselves cannot understand why this isn't done, unless it is that WPB figures that, by satisfying American thirsts with island products, the efficient U. S. distilleries can be kept on the production of industrial alcohol.

Still another involvement is the willingness of the Cubans to speculate on (1) congressional defeat of subsidies, which would mean higher prices for sugar, and (2) the duration of the war, with its implications for higher or lower prices in 1945. In any case, there's no



BOMB WAREHOUSE

Behind the combined Allied bomber fleets in England are the R.A.F.'s huge storehouses for bombs and other packaged destruction. Typical of these depots is an underground quarry

(above) where 4,000-lb. block busters are kept in subterranean chambers. Connecting this depot with dispersal points from which bombers draw their cargoes is a private railroad (below) whose trains shuttle continuously with bombs and depth charges.





SHELLS FOR SALE

Indicative of the interest in hunting during these days of meat rationing is the lineup of sportsmen and women buying shotgun shells at Houston, Tex. One small newspaper ad announced

the sale and produced throngs which queued ten-deep half-way around the block (above) at Oshman's sporting goods store last week. This scene is being re-enacted throughout the nation as WPB's lenient but late shell quotas (BW—Oct. 2'43, p32) appear.

likelihood that the CCC or any other government agency will be able to buy the 1945 Cuban sugar crop for as little as 2.65¢ a pound.

• **Things Looked Bright Then**—When the War Food Administration was urging the Office of Price Administration last spring to increase the sugar ration, supplies were backed up at refineries and optimism ran high over the defeat of the U-boats. The coffee ration was subsequently lifted, and there was a Presidential promise of more sugar.

WPB had the promise of more invert from the 1944 crop for alcohol production to offset the diminishing supply of grain—and East Coast distilleries were urged to convert to molasses. Large tonnage of blackstrap or its equivalent in industrial alcohol from Cuba also was expected.

• **Lend-Lease Needs Rise**—The supply picture was fairly rosy despite the reduction in the U. S. sugar beet crop (7,239,000 tons in 1943 as compared with 11,681,000 tons in 1942), but this was before extra demands for sugar came from Russia, North Africa, and other lend-lease beneficiaries. It was before U. S. total sugar requirements for 1944 were upped on this account from 6,800,000 tons to more than 7,400,000 tons (but allowing for no increase in the U. S. civilian and industrial ration).

Out of a total expected Cuban crop of 4,800,000 tons in 1944 plus the January (1944) Cuban carryover of 600,000 tons, the WPB wants at least 1,000,000 tons in the form of invert to be shipped to distilleries in this country. WFA officials believe that WPB will be lucky to get 800,000 tons made into invert.

• **Probable Maximum**—In any case, Cuban local consumption will take 200,000

tons of raw sugar, and a Cuban carryover of 600,000 tons into 1945 must be provided. The net would be 3,600,000 tons of raw for the U. S., as compared with U. S. purchases of 3,000,000 tons of Cuban raw in 1943.

But increased purchases of Cuban raw in 1944 will be just about offset by the increased military and lend-lease requirements, without any allowance for the reduced 1943 production of beet sugar. The United Kingdom and Canada also have a call on 1,000,000 tons or so of U. S. supplies.

• **Additional Imports**—Besides Cuban and domestic sugar, the U. S. expects to import about 3,000,000 tons of sugar from Hawaii, Puerto Rico, the Dominican Republic, Haiti, and other offshore areas.

WFA officials say that the whole calculation shows a U. S. deficit of more than 400,000 tons as between available supplies and requirements if U. S. carryover stocks as of Jan. 1, 1945, are to be held at the 1944 carryover figure of 1,960,000 tons. (The 1943 January carryover was 2,134,000 tons, and in 1942 it was 2,118,000 tons.)

• **Rationing to Stay**—The current supply situation is so tight, the WFA is now looking to Peru for supplementary supplies. It plans heavier liftings of Caribbean sugar during the first quarter of 1944 so as to increase Cuban warehouse space, and it plans to boost the subsidy to U. S. beet growers \$1 or so over the 1943 figure of \$1.50 per ton to induce bigger acreage in 1944 (BW—Jul. 24'43, p70). Officials realize, however, that more sugar beets in 1944 won't help the sugar situation until 1945.

Present prospects of raising the sugar ration are nil.

Tool Glut Studie

Plan for marketing surplus at smallest loss to industry and government is viewed with favor in Washington.

Disposition of surplus cutting tools after war contract terminations has kept tool company executives awake night for months. They have feared bankruptcy if their products went on bare store counters at below-cost prices. Last week more than 100 of them met in Detroit to discuss a cleanup plan.

• **To Thwart Loss**—The plan has been set up to bring reasonable recovery to the government on its investment, and to make possible the maintenance of continued production in tool shops.

Presumably it would avoid such sodes as the disposition of several hundred thousand dollars of standard tools in Detroit at scrap metal prices (BW—Oct. 2'43, p27). Such surpluses would be allowed to filter into normal channels.

• **Outline of the Plan**—The chief points of the plan, as outlined at the meeting:

All leftover perishable tools would first be brought to a central warehouse for sorting, rather than being placed in the block at purchase prices when contracts are canceled—the present icy of some service branches.

Special tools, useless outside the particular operations for which they were engineered, would probably be scrapped.

Standard tools would be returned in consignment to their manufacturers, billed at probably 60% of the original cost to the government.

The manufacturers would be expected to draw on this pool for a fourth of orders received for those particular items. At the end of each year, settlement would be made with the government for consigned equipment which was sold.

• **Approval Voiced**—Government people indicated that this arrangement seemed fair. Cutting tool men felt that the arrangement was satisfactory from their standpoint, giving them control of distribution of their products and a profit for handling, and they could continue to operate their production floors.

• **New Trade Association**—Indication of interest in the program was the committee named to knit the group into a new National Assn. of Cutting Tool Manufacturers. W. G. Robbins, president of Carboloy Co., Inc., was named chairman. Other large toolmakers and small tool firms were placed on the board, and small tool firms were given representation.

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This calls for action! One thought
in every Pennsylvania man's mind
rebuilding—restoring service—the
quickest possible way. Construction
materials are needed immediately—
but how to get steel?

At 3:10 P.M., the fire still burns
furiously. The railroad's purchasing
department phones a Ryerson man

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Ryerson Steel Delivered While the Fire Still Burns



This Sunday, September 12,
1943... A disastrous fire is
destroying the train sheds of
Pennsylvania Railroad's
at Broad Street Station in
Philadelphia, all important rail nerve-
center, vital to the Nation's war effort!

This calls for action! One thought
in every Pennsylvania man's mind
rebuilding—restoring service—the
quickest possible way. Construction
materials are needed immediately—
but how to get steel?

At 3:10 P.M., the fire still burns
furiously. The railroad's purchasing
department phones a Ryerson man

at his home. The order is for 60-foot
channels. Can Ryerson deliver?

Ryerson can—and does, in just one
hour and twenty minutes! At 4:30
P.M., a Ryerson truck pulls up at the
blazing station with the steel! Before
the embers were cold, the rebuilding of
Broad Street's train sheds was started.

Good service? Yes, say Pennsyl-
vania officials! Co-operation in an
emergency to avoid a tie-up of vital

war facilities? Yes! Proof that "steel
in stock for immediate shipment" is a
Ryerson reality. Proof that the Ryer-
son organization is ready and able to
meet every steel-service requirement,
however tough.

In any emergency—and in your
everyday purchases—you can depend
on Ryerson for steel. Call, wire or
write the nearest of the ten well-
stocked Ryerson plants.

Joseph T. Ryerson & Son, Inc. Plants
at: Chicago, Milwaukee, St. Louis,
Cincinnati, Detroit, Cleveland, Buffalo,
Boston, Philadelphia, Jersey City.

RYERSON STEEL-SERVICE

Oil Is at Stake

Teheran conferees were perched on a big dome in which all of Big Three have implied, if not expressed, interest.

When President Roosevelt, Prime Minister Churchill, and Premier Stalin met in Teheran a few weeks ago, they sat on one of the hottest spots of the post-war economic map, the Persian Gulf area. Its international heat is being generated from a partially explored, subterranean sea of oil, whose military and commercial importance to the United States, Great Britain, and Russia must have weighed heavily in the minds of the three statesmen, if not in their conversations.

• **One of the Two**—The Persian Gulf area is one of the two big sources of exportable petroleum now available to the United Nations. The other is the Caribbean area, Venezuela, Colombia, and the West Indies. A third, now under Japanese control, underlies the erstwhile Dutch and British East Indies.

British interests for years have been dominant in development of Persian Gulf oil. Their Anglo-Iranian Oil Co., Ltd., 57% of whose stock is owned by the British government, has the Middle East's biggest refinery at Abadan, at the head of the Persian Gulf (map). Anglo-Iranian and Gulf Oil Co. (U. S.) also own important production in Kuwait, in that vicinity.

• **Just Beginning**—But the oil game of the Persian Gulf is just beginning, and the United States may hold some of the winning hands before it's over. The present stalemate, as far as American activity there is concerned, arises from uncertainty over Uncle Sam's desire to be dealt a hand of his own, to remain as a silent partner of privately owned American oil companies, or perhaps to sit in as some kind of a referee.

Superficially, Uncle Sam withdrew his request for a hand a few weeks ago. At that time, negotiations between Petroleum Reserves Corp., a subsidiary of Reconstruction Finance Corp., and California Arabian Standard Oil Co., broke down (BW—Nov. 20 '43, p8).

Realistically, this was only one phase of negotiations which, because of the importance of their subject matter, must continue to some kind of ultimate decision by the United States government with respect to its future international oil policy.

• **Need Government Support**—Standard Oil Co. of California and the Texas Co., joint owners of California Arabian (Casco), are aware of utter dependence upon their government for support on their side of the table. But the question of full partnership between this govern-

ment and Casco apparently has not been decided by either party.

Casco represents the United States' principal stake in Middle East oil. It bought a concession covering approximately 250,000 square miles of mineral leases from King Ibn Saud of Saudi Arabia in 1934, a concession that runs until the year 2001, or thereabouts.

• **Ickes' Tipoff**—Secretary of Interior Harold L. Ickes, who also is Petroleum Administrator for War, Solid Fuels Administrator, president of Petroleum Reserves Corp., and incidentally a voluminous writer of books and magazine articles, made it pretty clear last week that he expects Uncle Sam to participate in the Middle East oil game, and in other areas of exportable oil, as a player for keeps.

In an article in American magazine, Ickes views the British international oil policy as much smarter and more forehanded than our own and suggests we make a democratic application of the British government-business plan to our own situation.

• **A Peacetime Problem**—Basing his argument on a contention that explored oil reserves in the United States may be depleted in about 14 years—a contention disputed by some oil men—Ickes holds that the oil problem will become

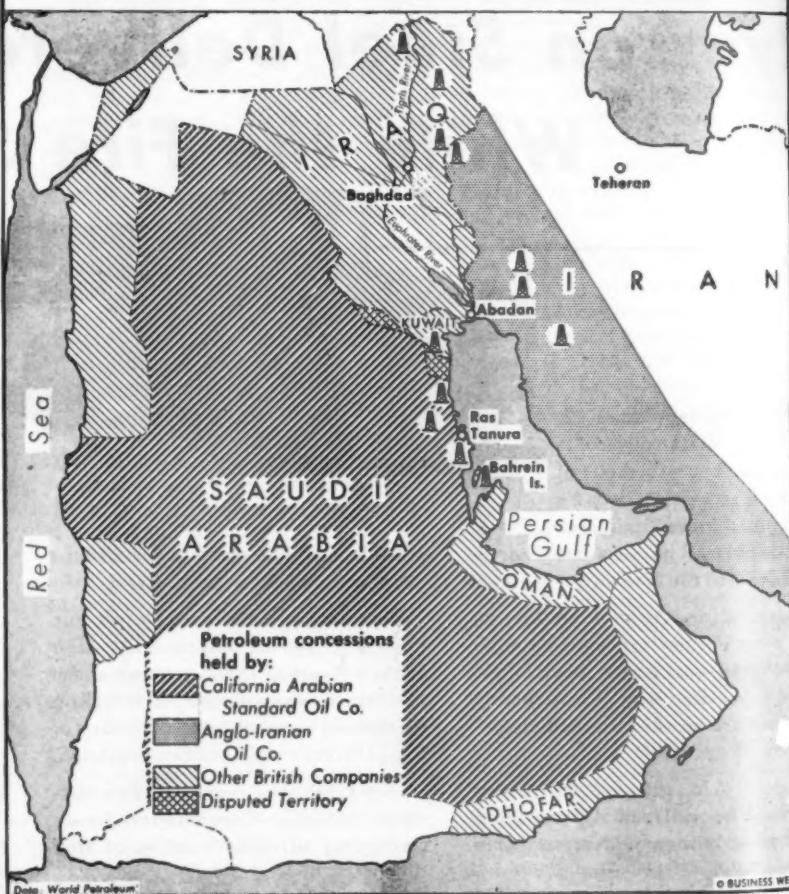
urgent as soon as peace comes; that the United States should covenant at the peace table for a fair and equitable distribution of oil, should lay in a 20-year stockpile of its own, and forbid oil supplies to any nation "which violates the basic principles of international law as defined by the Allied Nations."

The Ickes-Casco negotiations, during which Ickes must have argued for a government partnership, may have been halted temporarily for political reasons possibly for discussion among the Big Three at Teheran, but more likely because of rumblings in Washington that indicate Congress may demand a hand, too.

• **"Partnership" Opposed**—Some of the smaller independent oil companies, who couldn't expect to be included in the international oil game, are opposed to government partnership in the oil business under any circumstances. It is also suggested that there is no clear-cut authority for the United States to own oil property and engage in the oil business abroad; that an act of Congress would be required.

Petroleum Reserves Corp., chartered by the Reconstruction Finance Corp. last June 30, just before the statutory authority to charter RFC subsidiaries expired, has been under fire in some of

ARABIAN OIL-A POSTWAR PROBLEM



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"And I'll carry these 12 quarts of milk"

One day in 194(?) Mrs. Average Canner decides to buy a week's supply of milk. And she gets—not 12 quart bottles of milk, but 12 small packages wrapped in Cellophane! Later on she'll soak one in water. Presto! A quart of delicious milk—wholesome and refreshing.

Strange? No. That is a quart of milk after water has been expelled by hydration. Dehydrated milk, eggs, up and other foods are being shipped abroad to our Armed Forces and Allies in huge quantities. When every inch counts, they're saving 50%—90% on space.

This wartime development points the way to important improvements in merchandising and distributing foods after the war. Packaging will undoubtedly keep pace. Packages will be more convenient—will have greater protection from spoilage and soiling.

The packaging knowledge we have gained during eighteen peacetime years of research and development is now being amplified in the solving of many wartime packaging problems. This accumulation of experience will

serve well in post-war packaging and merchandising, in which we firmly believe Cellophane will play a vital part.

FREE BOOKLET

An interesting booklet containing other advertisements in our Business Week series, "Glimpses into the Wonder World of Tomorrow," is yours for the asking. Write E. I. du Pont de Nemours & Co. (Inc.), Cellophane Division, Wilmington 98, Del.

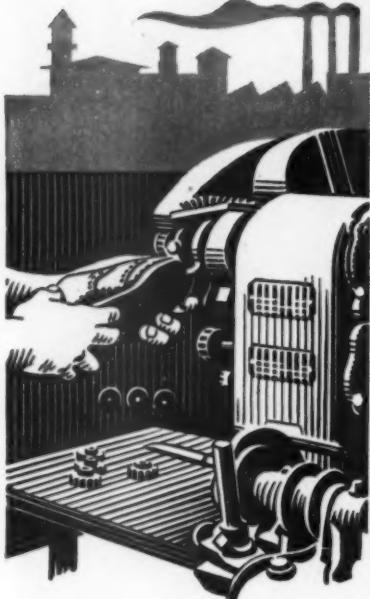
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FAMOUS as Maine is for the manufacturing of moccasins and sport shoes, the production of *all* kinds of shoes . . . millions of pairs a year for men, women and children . . . is its specialty.

Pride of craftsmanship handed down generation to generation from journeyman shoe craftsmen has made Maine labor loyal and experienced. It adds an authentic specialized touch to volume production.

Maine offers, too, abundant and economical water and electric power, low taxes, and the world's richest market within overnight distance.

There are other reasons why industry prospers in Maine. The brochure, "INDUSTRIAL MAINE," will give you the complete picture. Send for your free copy today and for after the war.

Address: Maine Development Commission, Room 12-8, State House, Augusta, Maine.



NOT FOR SALE

For one day last week, thirsty New Yorkers were permitted to examine \$60,000 worth of government-seized liquor slated for public auction. But that's the closest they got to outbidding the shortage of potables. Just before the Customs Service's hammer

fell, OPA stepped in and demanded that its price ceiling be observed. Orders from Washington, Customs decided against such a noncompetitive auction and put its bottles back in storage. The liquor includes lie wines, rye, bourbon, and scotch that was taken off boats commandeered by the government when the war began.

the oil trade journals for its "secrecy."

Although Ickes is president of PRC, he isn't the whole show. Other directors include the secretaries of State, War, and Navy, and Leo T. Crowley, who also can give orders to PRC because its operations come under his Foreign Economic Administration.

• **Junket Publicized**—About the only PRC activity Ickes has taken the trouble to publicize has been the sending of Dr. E. L. DeGolyer, a geologist formerly with PAW, W. E. Wrather, director of the U. S. geological survey (Interior Dept.), and John Murrell, also a former Ickes subordinate, to survey the oil possibilities of Saudi Arabia and the Persian Gulf area.

One possibility suggested by Ickes' critics was that PRC might elect to go into partnership with Anglo-Iranian rather than with Casco. Such a possibility seems remote for political reasons if not for practical ones.

It has also been suggested that the PRC junket to the Middle East may be for the purpose of acquiring leases from the Kuwait government on areas now mapped as "neutral"—in dispute between Kuwait and Saudi Arabia—and thus start in business with a questionable claim in questionable territory.

• **Refining Capacity Lacking**—The notion that the British have been playing smart with their oil reserves while the United States has been supplying United Nations requirements, oil men say, ignores some important facts. Admittedly, the British have billions of

barrels of oil under concession in Iraq and Iran, but their refinery capacity is limited, and it takes a year or so to build a modern refinery, even where steel is available.

Oil in the ground is of no immediate value in a war until it can run through a refinery.

California Arabian several months ago proposed to enlarge its refinery capacity adjoining the Damman oil fields on the Persian Gulf in Saudi Arabia by building a new \$120,000,000 refinery at Ras Tanura. Since government partnership negotiations were suspended, the project has been cut in half, but Casco is willing to finance the revised project alone. It requires government approval, however, to get steel and components. Casco also is engaged in doubling the capacity of a smaller refinery it now operates on the island of Bahrain, south of Ras Tanura in the Persian Gulf.

• **Anybody's Guess**—Oil men generally agree that the Persian Gulf area contains one of the world's greatest oil deposits, but ultimate production is anybody's guess, beyond such broad generalities as "billions of barrels," or "several East Texas fields." Some observers, including Sen. Ralph O. Brewster of Maine, got the impression the British reserves there are about twice the volume of those held by American interests. But Casco, modestly closemouthed about its Arabian concession covering territory about the size of California and Oklahoma, suggests that the total eventually may be about even.

Trucks Authorized

But total of 123,492 for civilians in 1944 won't be nearly that big after deductions for war agencies and contingencies.

Seven hundred thousand trucks for the Army, 123,492 for civilians—that's the way the 1944 truck-building program which has been authorized by the War Production Board (BW-Nov. 20 '43, p16) breaks down on paper.

• **Civilians Will Lose**—But actually civilians will lose some 40,000 of their allowance to war agencies other than the armed services. And manufacturers are talking in terms of completing only 75% of the authorized program, which would further reduce the number of vehicles available to civilian purchasers—perhaps even half the number indicated by WPB.

Both military and civilian production have been set up on a unified basis under the supervision of the Army's Detroit Tank Arsenal, so that each should get a proportionate share of the output. But in the event of a military squeeze, it shouldn't be hard to guess where the slack would be taken up.

• **Obstacles Seen**—The industry can see a number of possible deterrents to a smooth achievement of the WPB program. Components, such as forgings and malleable parts needed for gears and transmissions, are liable to be one obstacle. The big demand for bearings could be another.

Top peacetime production was 893,000 units in 1937, but then trucks weighing less than 1½ tons totaled 45% of production. Presumably most of the Army's 1944 schedule is heavy stuff. The civilian schedule is composed of units that will carry over-the-road freight; off-the-highway units for mines, petroleum, and lumber; and those that will carry food from farm to market (page 28).

• **Class Breakdown**—Latest breakdown of the "civilian" program calls for 92,057 mediums ranging from 9,000 lb. to 15,999 lb. gross vehicle weight; 21,030 light heavies ranging from 16,000 lb. to 24,000 lb.; 10,405 heavies ranging from 24,001 lb. up.

Allocations of civilian truck production follow pretty much the five-year 1936-40 average. They are: Autocar 2,727, Brockway 1,237, Chevrolet 33,122, Corbitt 200, Dart 179, Diamond T 2,887, Doane 1, Dodge 10,367, Duplex 10, Euclid 522, Federal 2,034, Ford 28,149, F.W.D. 297, G.M.C. 9,851, I.H.C. 19,683, Kenworth 291, Koehring 59, Linn 20, Mack 4,505, Oshkosh 152, Peterbilt 317, Reo 1,594, Sterling 510, Walter 188, White 4,442, and not yet authorized 148.

The Story of a SECRET AIR WEAPON



...now on the U.S.S. Helena 40 Fathoms down in Kula Gulf!

Make no mistake—when a development comes along, so different that the Navy takes it over-lock, stock and barrel, that's big news—and has implications for all business and industry. For its beginning, let's go back to before Pearl Harbor.



1. **ANTICIPATING WAR**, our Navy was packing ships with armament, fire power, speed... cutting everything else to the bone. But a battleship needs as many as 300 separate ventilating systems. On the chance of saving space and weight, the Navy came to Sturtevant, with specifications for a ventilating fan that "couldn't be built" . . .

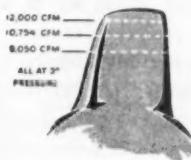


2. **MEANWHILE**, Sturtevant's Research Chief had come through with an idea for a new kind of fan we have since named "Victory Axifo"—a design which looked so important it had leaped from the sketch pad into metal without experimental development. The new fan stood in our shops awaiting first test . . . on the day the Navy came to us.

3. **THAT TEST** made fan history! The Sturtevant Victory Axifo Fan delivered exactly what the Navy had hoped for. Showed a 40% saving in weight and space! Quietness—a sound energy 40% under the Navy maximum! And 90% total efficiency!



4. **THIS HAND-BUILT TEST UNIT** went aboard the cruiser Helena for trial—and never came ashore. The Navy asked for all the Victory Axifo Fans we could build—till Victory. And because it was a completely theoretical design, the first orders for 66 different sizes were completely covered with 8 standard fans—simply by changing blade lengths.



YOU CAN SEE WHY we must ask industry to wait, for the revolutionary benefits that will come when the Sturtevant Victory Axifo puts air to work for you.

WITH VICTORY, the difference between profit and loss may be the proper use of engineered air to ventilate, heat, convey, air condition, control dust and fumes or burn fuel more economically. Sturtevant is ready to work with you or your post-war planning committee to start solving these engineered air problems now.

B. F. STURTEVANT COMPANY
Hyde Park • Boston 36, Mass.

Sturtevant
Puts Air to Work

Passport for Safe Arrival



"Corrugated" Protection for Vital War Supplies!

The V3c corrugated box is one to remember for its excellent war-time service record, and for its high promise of reliable protection in post-war shipping.

Today, the H & D V3c is carrying torpedo directors, dry-cell batteries, sun helmets, lubricating oil, tank batteries, practice bombs, paints, and many other important war supplies directly to scenes of action. Its bursting test is 400 lbs. per square inch; its size limit is 90 inches; its gross weight limit is 70 lbs. Every V3c box made by H & D meets the rigid specifications of the Army and the Navy.

V3c is something to keep in mind for your heavy duty post-war shipments. Safe arrival is assured when you use rugged, dependable, properly engineered H & D corrugated boxes. Why not let the H & D Package Laboratory go to work on some of your post-war packaging problems now?



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To Haul the Food

Farmers' thrifty habits are haunting them now that their old trucks are wearing out and the available replacements are few.

Motor truck transportation is a headache for 1944 economic planners, and farm vehicles constitute one of their sharpest pangs. Farm trucks were, even before the war, the worst set of jalopies on the highways. Virtually no trucks have been manufactured since Mar. 1, 1942, hence average condition of farm trucks has not improved.

• Ownership Tabulated—The Office of Defense Transportation last week was reviewing statistics newly tabulated from its certification of all trucks. Agriculture, ODT finds, uses approximately 1,600,000 motor trucks. Of these, 1,100,000 are farmer-owned and 500,000 are for-hire units which handle unprocessed farm products and farm supplies. In capacity these split up: 1 ton and under (pickups), 45%; 1½-ton, 50%; over 1½ ton, 5%.

When he had a free prewar choice, the farmer bought two used trucks for every new one purchased. This thrifty habit leaves him today stretched right over the barrel. Average age of the farm-owned truck, says ODT, exceeds ten years. All too many of these antique motor vehicles are wobbling to their well-earned rest, and the city feller whose castoffs formerly fed the farm market now insists on driving his truck until it, too, gives up the ghost.

• Replacing 1% a Year—New trucks, from the sadly shrunk civilian pool which was set up early in 1942, are harder to buy than a case of bourbon. ODT points out that, in proportion to agriculture's prewar purchases of new trucks, this industry has been getting all the best of it. Allocations for farm-owned and for-hire farm trucks were 36% of total withdrawals from the pool last July and August, peak farm months. But the War Food Administration counters that these allocations are replacing agriculture's old truck fleet at a rate of less than 1% a year, which is not enough to keep the crops rolling.

WFA transportation experts are studying newly tabulated reports from the state agricultural war boards. Every area cried urgently for new equipment. The East's need is predominantly for milk-hauling trucks, the West's for heavy highway units, the rest of the country's for light pickup trucks. Clearly, unless a way is found around his present or impending lack of equipment, many a farmer faces trouble during the months ahead.

• Farmers Are Resourceful—Measured statistically, catastrophe is unavoidable;

farm forecasts based upon mere statistics have a habit of going askew because the farmers are more resourceful than the figures can show. Every Washington agency with a stake in their field is working on plans to avoid crisis in the coming year just ahead. But even the Army Dept. of Agriculture admits a secret suspicion that though nothing has been done to help him out, the farmer will find ways to prevent any farm product's spoiling in 1944 for lack of trucks to haul it to market.

Nub of the problem is that 20% more products than in 1941 must be handled with 25% less equipment. Only more effective use of existing facilities can everything move on schedule. Washington planning focuses on taking the waste mileage that would in ordinary times be tolerable, and using this transport full loads of farm products supplies.

Only 26,000 Left—Prior to 1941, the major truck manufacturers sold 700,000 vehicles to domestic users in good years. In 1942 and 1943, the aggregate pool has been less than 150,000 trucks. Remaining in the pool as of Nov. 15, 1943, are 10,000 light trucks (under 1½ tons) and 16,000 medium trucks (1½ to under



KEEPING CHAIR

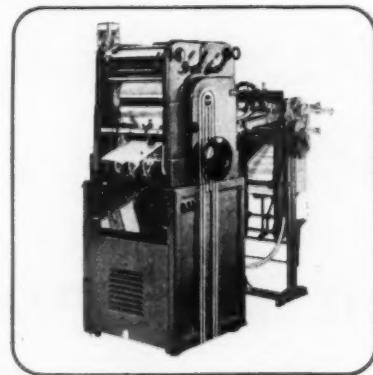
art new coach seats promise economical rail travel virtually all the comforts of home—after the war. The best in seating is a reclining armchair that provides a hassock inside which the passenger can park valuables for keeping (above). Designed by Philadelphia's Edward G. Budd Mfg. Co., four of the new chairs are being tested on Seaboard Air Line Railway's New York-Miami run. For daylight travel, leg rests swing up out of the way; at night, they're dropped to provide a chaise-longue effect.



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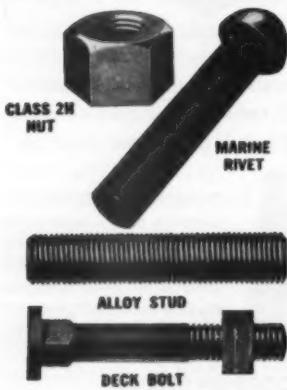
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DOWN TO THE SEA IN OUR

vitally needed **SHIPS**



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Manufacturers of machinery and automotive equipment, railroads, construction companies, shipbuilders and other users of fastening devices find the accuracy and uniformity of Oliver bolts, nuts and rivets a practical help in speeding production, conserving labor, reducing costs.

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3 tons). A bare 2% replacement schedule for agriculture would require 32,000 trucks next year, which is a lot more than the farmers can possibly hope to obtain.

No. 1 problem of farm hauling is milk, because it has to move every over 60,000 to 75,000 handling route. Its one advantage is that it can be planned regularly.

• Industry to Need 25,000—The Federated Milk Assn. made a survey of truck needs as of August, 1943, figures, checked and extended to nationwide scope by the Dept. of Agriculture indicated that by August, 1944, the entire milk industry will need 25,000 new 1½-ton trucks. The department had, in the four intervening months, virtually no complaints of milk unhandled but wonders whether this record can be maintained without new trucks when the spring flush arrives.

ODT is knee-deep in plans to keep milk moving. A prize exhibit is guinea-pig local committee under ODT auspices that is saving 126,000 truck miles a year in the tiny Colebrook (N. H.) milkshed. Wisconsin has such committees, 48 of which have plans approved and functioning to save 11,650,000 truck-miles among 91 producers and 1,300 processors. The dairy products field has 482 committees of the same type.

• Hogs Overran Market—In spite of truck shortage indicated by statistics, livestock haulers managed to cart many hogs to market early this month (BW-Dec. 11 '43, p18) that the pack could not handle the flood. The immediate worry of the hog raisers is rather the possibility that WFA may impose hog shipping permits to prevent future market gluts. ODT has organized major livestock areas with 88 committees along much the same lines as major and local committees in units as small as counties.

• California Problem—Biggest problem in hauling every year is perishable fruits and vegetables, particularly in California. Last spring ODT moved in California ahead of the season and, for all practical purposes, consolidated 600 available trucks into a single transportation system that did the same work 1,500 handled before the war. ODT even got lashing rope for the trucks and then took it away from them at the end of the season and warehoused it for issue next spring.

Consequence of enthusiastic cooperation among growers, cannery, and government agencies was a practically perfect hauling record for 1943. Dates of the California plan can be expected in most major fruit and cannery regions next year.

• Trailers Urged—Organization of mid-America into local transportation committees is proceeding under ODT auspices. WFA is getting together the first

How an Axis nightmare was born

"Hello . . . hello . . . will you build a brand-new type of tank landing ship for the Navy? Can't show you a photo or blueprint. None available yet."

"Sure. We build bridges. No reason why we can't build ships too. We'll do it."

... And so last year, one of U.S. Steel's inland plants turned a Pennsylvania 64-acre swamp into a shipyard. Built 35 buildings. Ship berths. Launching ways. Turned bridge workers into shipbuilders. Signed up to make prefabricated, all-welded ships.

You know these LST's now. Front pages splashed their pictures in the Italian landings.

No big American company has a corner on smart, hard-headed men who know how to make things. But we have our share. Working out armor-piercing shot. Seamless pipe for the "Big Inch" oil line. Tank steels.

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Wartime improvements in steel will serve you when peace comes . . . help you make better products, build more profitable markets. More than ever, you'll find steel has no rival for usefulness, versatility, strength, easy fabrication. And the USS Label will be a greater sales help than ever on the products you make.

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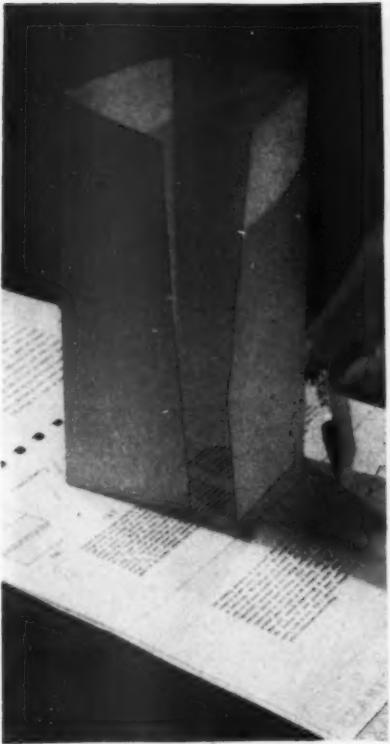
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and figures to back up recommending that WPB authorize building plenty of two-wheel farm trailers which in an emergency can be pulled behind any power vehicle, whether tractor or passenger car; after all, most livestock and grain moves only a few miles from farm to market.

Another Washington-inspired program is a farm-truck maintenance campaign that will get rolling shortly after Jan. 1, 1944.

Autos Dwindling

Only 24,500,000 cars now in service, 2,500,000 fewer than a year ago; trade hears new car pricing may be changed.

The number of passenger cars on the road has dwindled to levels of about eight years ago. Charles L. Dearing of the Office of Defense Transportation told the American Assn. of State Highway Officials in Chicago that some 24,500,000 cars are now in service. To this total he added a million units in storage and in dealer hands.

• **Off 5,000,000**—The aggregate is off more than 5,000,000 from the high-water mark of 29,601,774 units listed as registered by private owners by the Bureau of Public Roads as of Dec. 31, 1941. It represents a decline during the past year of about 2,500,000 units from the 27,974,156 registrations of Dec. 31, 1942.

• **Lower Scrapping Rate**—The rate of decline was said by Dearing to be less than the normal scrapping rate, and in this, automotive statistical experts concurred. The reasons for decline in the rate, obviously, were the lower mileages

that cars are being operated, and the tension of car life beyond usual levels due to deficiencies in the supply of placements.

Registration totals were swelled in late thirties, despite scrapping rates, enlarging production of new cars. Production has been halted for about two years, and the stockpile of cars in dealer hands is estimated at no more than 50,000 vehicles or so.

• **Increment Under Fire**—The small size of the present pool is kindling more in Washington to end the month-to-month increment of \$15 or 1%, whatever is lower, in factory list price.

Trade circles hear that OPA may consider these increments after Jan. 31. In such a move, OPA would be opposing the policy of the Reconstruction Finance Corp., which has guaranteed to buy stockpiled cars and trucks from dealers.

The matter was at issue recently because RFC loans to dealers on the stocks were to mature Dec. 31. Now the loans have been extended to Apr. 30.

RECONVERSIONS, LIMITED

One of the first instances of reconversion to production of peacetime goods due to cancellation of munition contracts occurred last week when the L. C. Smith & Corona Co. of Syracuse, N. Y., announced that it was resuming production of typewriters—but there's a catch; ostensibly they are all for the armed forces.

The company had been producing the M1903-A3 rifle, a variation of the Springfield, for the Army, but the output of carbines and Garand rifles is not so great that there is no longer any need for the inferior M1903-A3.

Remington Arms Co.'s plant at Ilion, N. Y., which had been producing the



BARGES BY TRUCK

Poised aboard special trailer mounts, a 150-ton steel cargo barge (above) qualifies as one of the biggest truck shipments ever tackled. The task performed by Bigge Drayage Co., Oak-

land, Calif., involved the transportation and launching of six such vessels ten miles from their manufacturing point. Before awarding a contract for the barges, which measure 120x36x18½ ft., the Navy first made sure they could be trucked to launching waters.

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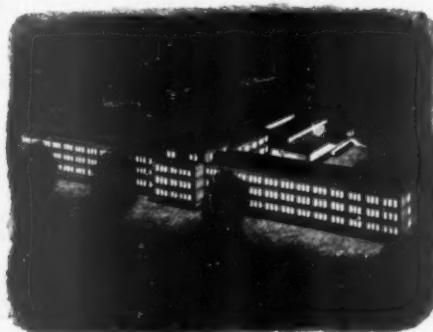
APPROACH AS PLANNED"

Fog has suddenly closed in. Yet the big transport pokes its nose through the murk—and 21 passengers alight on schedule!

For radio beacons have kept this plane rigidly on its course. A friendly voice from the airport warned of the ugly weather ahead and suggested the best way to meet it. Then, as the plane roared in to the runway, the radio voice directed a perfect, unobstructed landing.

Aviation is only one of many fields in which radio is stimulating progress. While today radio manufacturers are all out for Victory, technical improvements developed in wartime will enable them to bring you new and better radio-electronic products when Peace comes.

Your purchase of War Bonds will help supply American fighting men with the world's finest equipment.



Pioneers in the field of radio-electronic research, RCA Laboratories, through fundamental study and endless experiment, serve America's great radio industry at war. When peace returns, RCA will continue to make available to American manufacturers of radio equipment new discoveries and inventions in radio and electronics. RCA research means greater progress for the industry, finer home radios and television.

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It is primarily the heat-shaping process that makes Pedrick *precisioneering* tick . . . that assurance of correct tension, dimension, and flatness which engineers demand in rings, whether for pistons or any other compression use.

While providing *precisioneered* rings for a multiplicity of combat applications, Pedrick is still restoring power and giving economical operation to civilian trucks, buses, war-workers' cars, and the power machines of industry. They, too, need Pedrick *precisioneering* . . . and get it. WILKENING MANUFACTURING CO., Philadelphia and Scranton, Pa. In Canada: Wilkening Manufacturing Co. (Canada), Ltd., Toronto.



Pedrick

precisioneered PISTON RINGS

BACK THE ATTACK WITH WAR BONDS... YOU INVEST AND OUR FORCES INVADE

same rifle, is also affected by the cancellation.

Another contract cancellation news last week when the Hercules Co. announced that it was closing two of its plants, at Belvidere and Paul N. J., which had been making smoke powder for the British government because the British are now able to obtain the powder from sources closer to the fighting fronts.

Fight Over Oil

Navy and D. of J. are said to have fairly well agreed on new Elk Hills contract, but Ickes still have Ickes to deal with.

President Roosevelt may still have to settle a three-way interdepartmental struggle over operation of naval petroleum reserve No. 1 at Elk Hills, Calif., which threatened to be blown up in a big scandal.

• Up to Committee—Ostensibly Navy and the Dept. of Justice are in agreement and have laid their differences before the House Naval Affairs Committee which is supposed to make a policy before expiration of another day temporary working agreement the Navy has made with Standard Oil of California.

But well-founded reports have it that Interior Secretary Harold Ickes is also coming in, this time with a very hush-hush plan to have control of all naval reserves transferred back to the Interior Dept. from which they were taken at the time of the Teapot Dome scandal in the early thirties.

• Scandal Proves a Dud—Last spring Ickes and the D. of J. objected to a contract Navy had made with Standard on Nov. 20, 1942, providing for joint operation of their checkerboard properties in this field. Congressional committees hinted at a scandal, but investigations showed only that the Navy might not have been able to make a better deal.

That contract was canceled, and a temporary working agreement, now extended to Mar. 8, 1944, permits Standard to continue taking 15,000 bbl. a day of badly needed crude for war uses on the Pacific Coast, with accounting to be made later. A new contract has been drafted which Navy thinks protects its interests better.

• Legality in Doubt—The Justice Dept. is not willing to say the new contract is not authorized by existing law but wants certain changes in the contract, and thinks legality is so doubtful Congress should specifically approve.

Justice much prefers outright condemnation of all of Standard's holdings in Elk Hills, but admits this means long and costly litigation and that any

new legislation would be required to permit the Navy to take the oil out of the reserve and so is not pressing for condemnation as strongly as it did last spring.

Overproduction Barred—Basis of the new contract is a unit plan of operating both Navy and Standard lands as a single pool, with yield shared according to estimates of volume of oil underlying the surface rights of each, as computed by a joint technical committee. This would prevent overproduction and excessive drilling.

After the war, Navy would decide how much should be produced. Standard would not have exclusive right to produce from its own property or to buy oil from the Navy's holdings.

During the 90-day interim, Congress may decide whether to approve the new contract, with or without amendments, or to recommend condemnation. Chances are the contract method will be approved unless Ickes manages to get a hand in the settlement. The other parties may have to appeal to the President to stop Ickes.

Lead Is Scarce

Demand for the metal is climbing, but domestic production is up against manpower troubles; imports are uncertain.

Now the lead supply of the U. S. is worrying WPB. Early in the year, Metals Reserve Co. had stockpiles sufficient for 3 to 3½ months; these are down one-third.

Production Is Off—While demand for lead is going up, domestic production is going down, chiefly because of lack of manpower—both in the mines and in reclaiming metal. Imports, 25% to 30% of present consumption, are uncertain. Peru and Mexico send us most of our foreign lead, but rail transportation and scarcity of miners have limited production south of the border, while shipping has cut the Peruvian tonnage.

Where It Goes—Batteries are the biggest user of lead today, taking almost one-fifth of total consumption. (Exact figures are secret.) One reason for the big potential demand for batteries is the 123,492 commercial motor vehicles that WPB has authorized for civilians next year (BW-Nov. 20 '43, p16). This year only 17,000 were scheduled and just about 100 were delivered.

Ammunition for small arms takes the next biggest lump of lead, cables take almost as much, paint and gasoline together require almost as much as ammunition.

Tetraethyl for gasoline will increase 25% next year over 1943, according to estimates of the second largest single



(Official U. S. Navy Photo) Roustabout Cranes are hustling war materiel at home and overseas.



Roustabout Crane handling U. S. 1000 pounder bombs in Britain. (Official Signal Corps Photo).



Roustabout Crane puts motor in place on Liberator Bomber at Consolidated Vultee's San Diego plant.

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ROUSTABOUT CRANE'S handling, stacking, loading speed and versatility—now widely serving armed forces, war plants, air fields and transport organizations—promise you new efficiency and lower costs after the war. For these powerful load-hustlers, on wheels or crawler tracks, are *where you want 'em*, *when you want 'em*, preventing delays, keeping things moving, bulky stuff to 5 tons. Easy to operate, all tractor power, full swing boom on ball-bearing turntable, gears in oil—built for years of over-work. For fast action now, for post-war cost cutting, write for the Roustabout Crane story.

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user of lead in the country—Ethyl Corp. Need for high-octane fuel explains it.

Paint, despite manufacturers' difficulties in getting containers (BW—Oct. 16'43, p14), is using more lead because the linseed oil situation is improving (BW—Nov. 20'43, p50).

• **Hunters' Dividend**—Cutbacks in ammunition for small arms are already under way but probably won't increase the over-all lead supply. Instead, the lead thus released may go into shells and cartridges for hunters and farmers.

The Dept. of Agriculture is eager to help its farmers protect crops and orchards against predatory fowl and beasts, and the Dept. of the Interior and the War Food Administration are pushing a 1944 program for more meat from wild game than the 253,000,000-lb. kill of 1942 (BW—Oct. 2'43, p32).

• **To Be Closed**—The four small arms ammunition plants that will close before Dec. 31 (because the Army has filled depots) are the Lowell (Mass.) Ordnance Plant (from 3,500 to 5,700 employees); Utah Ordnance Plant, Salt Lake City (9,000 employees); Milwaukee (Wis.) Ordnance Plant (5,000 employees); and Scioto Ordnance Plant, Marion, Ohio (1,400 employees). The first two are Remington-operated, the last two by U.S. Rubber.

Most of the U.S. lead mines are in Utah, northern Idaho, Nevada, Arizona, and Missouri. To keep up their production, WPB recommends that mines now in operation be kept so, that labor forces be maintained by military deferment of mine, mill, and smelter workers. Little mines that couldn't otherwise operate are paid a small premium, but WPB isn't looking for new mines that might prove too experimental.

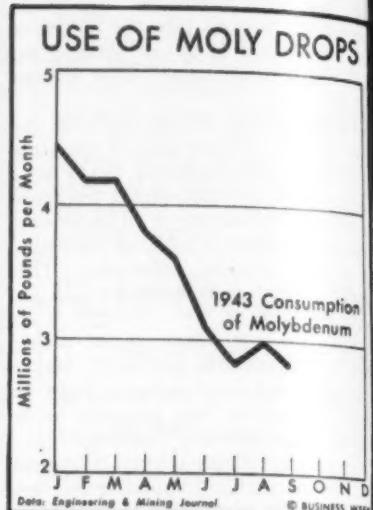
• **Use Restricted**—Since 1941 lead has been restricted as to use. Order M-38 prohibits its use in such articles as badges (except for the military), toys and games, art goods, and the packaging of cigarettes, gum, and candy.

Up to Brewster

Kaiser says company can hit Navy bogey of 150 planes by May, and committee agrees not to cancel contracts.

Nine months ago, when Henry J. Kaiser took over management of Brewster Aeronautical Corp., the question was whether the West Coast miracle man could make something out of the war's biggest production flop. And it still is.

• **Hearings Inconclusive**—Certainly nobody will find the answer in the record of the hearings which the House Naval Affairs Committee held for over a month, for that investigation, like those



Use of molybdenum (in common with most steel alloying materials) has fallen sharply, and the stockpile has grown to about six months' needs—another indication of the decided easing in this country's metals situation. Even as to lead—the one metal about which WPB seems currently to be able to work up some concern—the trade is relatively complacent. Antimony has been released from allocation; molybdenum and vanadium may be shortly. Two price cuts have been noted in quicksilver; aluminum and copper output may be curtailed.

of the Truman committee and the War Manpower Commission which preceded it, ended up in a confusion of charges and countercharges flung by both labor and management.

And Kaiser insists that the answer can't fairly be read in Brewster's current production record, for the management has been so busy cleaning up the mess which it inherited last spring that it still hasn't got its production machinery or its labor relations in even elementary running order. That's why November production was actually below October output and still a good deal less than even scaled-down schedules.

• **Cancellation Averted**—Kaiser did get one thing out of the most recent hearings—a promise from the House committee, which had the power to recommend cancellation of his contracts, that he won't be investigated again until he has had a chance to show what he can do.

Some committee members did favor the termination on the grounds they believed the Brewster situation would never improve, but they were dissuaded by the assertion of James V. Forrestal, Under Secretary of the Navy, that the carrier-based Corsair fighters it makes

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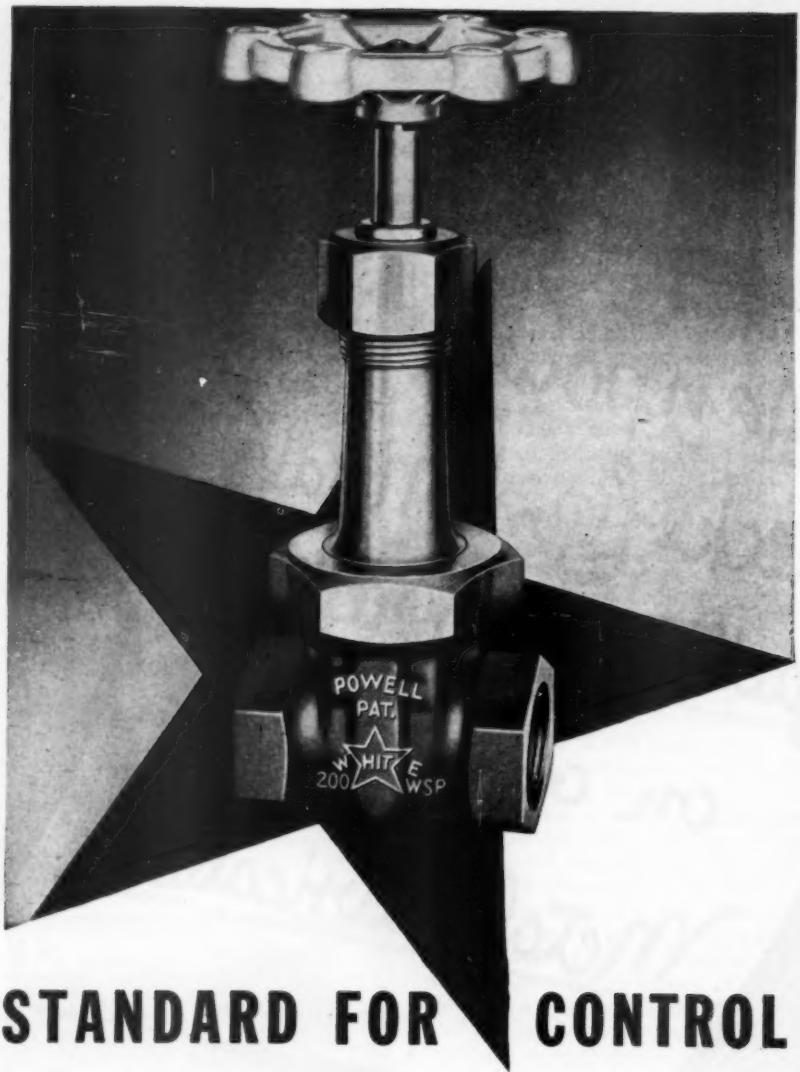
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(along with Chance-Vought and Good-year) are desperately needed.

• **Management Forecast**—Kaiser reports that he will be able to turn out 65 planes in December and 150 by May. He said he believes the rate could be put up to 288 by September, 1944, but the Navy says it will be satisfied with the 150 figure.

Brewster, a former custom automobile body builder, entered the aviation spotlight in 1938 with its Buffalo, then the fastest ship-based fighter in the world. Fifty-four of these planes, sold to Finland, distinguished themselves in that country's war with Russia in 1939 and brought international attention to the company, which piled up an \$128,000,000 backlog of U.S., British, and Dutch orders.

• **Company's Expansion**—As a result of this expanded demand, far too great for its old, chopped-up, three-story building in Long Island City, a new \$8,000,000 modern assembly plant was built at Johnsville, Pa., a short distance from Philadelphia and only a stone's throw from the home of Brewster's first president, James Work.

Parts are shipped to this plant—leased from National Defense Corp. with an option to buy—via truck from Long Island to be assembled into complete planes. Its other plant, a rented hangar at Newark Airport, makes wing panels for Consolidated Vultee.

• **Mess Comes to Light**—Brewster proceeded to fall down on its contracts and the Navy seized the plants in 1942, when it was revealed no planes had been produced.

Investigation showed it was a case of the Navy taking over or the sheriff, since huge fees and dividends had been paid out of money that should have been used to finance the expansion. The four major stockholders were then required to place their holdings in a voting trust under Navy control.

Since then, Brewster has been almost constantly beset by labor troubles, production failures, and changing management.

• **Charges Against Workers**—Testimony before the Naval Affairs Subcommittee elicited the information that 665,000 man-hours have been lost in 13 labor disputes, a closed shop contract with Local 365, United Auto Workers (C.I.O.) being blamed by management for hindering efficient operation.

Thomas De Lorenzo, president of the local, who rose to that position from a \$22-a-week riveter's helper at Brewster, and who admits his real name is Harry Posner, but uses a half-dozen aliases, has been charged with running the plant through the power vested in him by the "unworkable" contract.

• **Labor Has Its Say**—At the recent hearings, De Lorenzo blamed management for its attempt to produce six different type planes in three years, bad assembly

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os, bad material handling, and general "stupidity" with labor. Other witnesses, including former Brewster officers, reiterated his contentions.

Kaiser entered the Brewster picture as chairman of the board at the Navy's request last St. Patrick's Day and became its fifth president when Frederick C. Brewster resigned on Oct. 7, after settlement of a four-day strike (BW-Sep. 4-88) over plant guards' seniority rights.

Brewster Chosen—One month later a new labor contract, which had been signed in ten months of negotiations, was signed by him. The next step was appointment of Moses Shapiro, National War Labor Board agent, as permanent arbitrator, with the power to settle any differences on the spot. Both sides agreed to abide by his decisions. Kaiser installed his own production experts and put them to work ironing out the kinks at Brewster which is now devoted entirely to output of Corsairs, the Navy having canceled its order for carrier dive bombers and the British having recalled their contract for Beraders.

These cancellations found Brewster unprepared, so about 1,000 workers—men and women—have been laid off in recent weeks.

And He Is Out of Pocket—Kaiser is working for the Navy without pay and reaching into his own pockets for the salaries of the staff he brought with him. He says he is doing it as his duty as an American citizen to help win the war. Right now he is spending more time at Brewster than on any of his other far-flung projects.

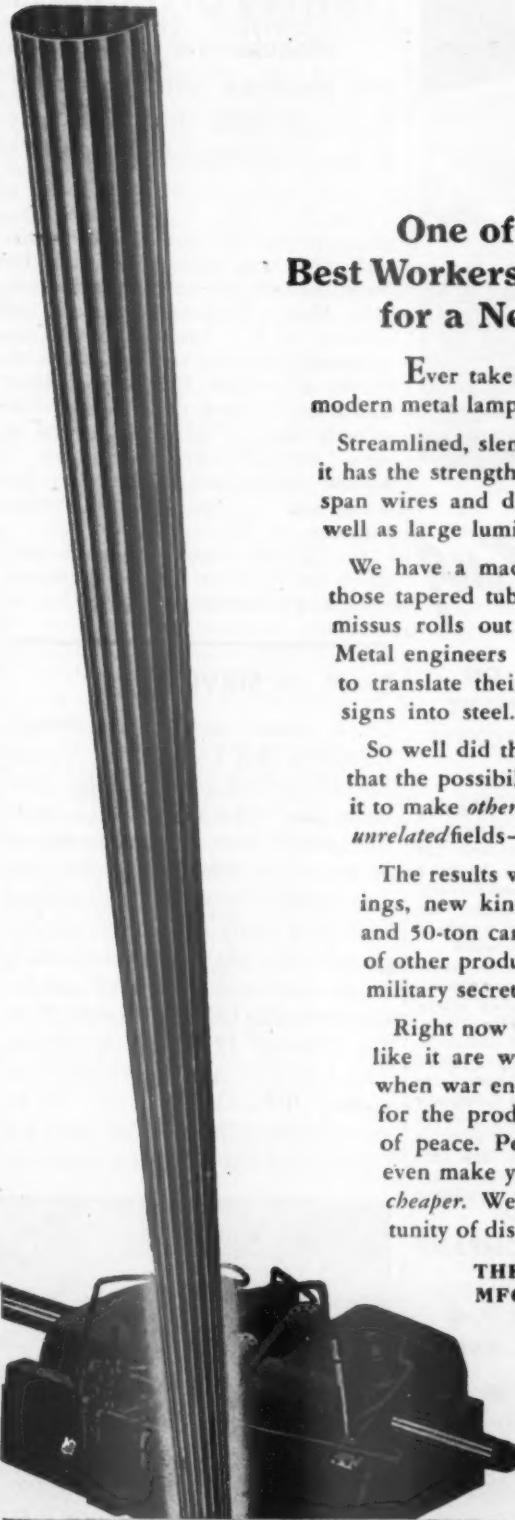
TAXI FOUGHT BY P.C.A.

A protest against the granting of a helicopter route franchise to a Greyhound subsidiary in Michigan (BW-Nov. 11 '43, p.30) was filed last week by Pennsylvania-Central Airlines.

The protest was given to the governor, the state highway commissioner, and the state Board of Aeronautics, which issued the franchise. It complained that P.C.A. already had a franchise, granted by the Civil Aeronautics Board in Washington, to operate aircraft over the same Detroit-Bay City run authorized by the Michigan agency.

P.C.A. also complained that, as an interested party, it was not given notice of filing of petitions covering that route, or of the hearing. And the airline questioned the jurisdiction of the state board in granting a franchise for air transport. The state presumably must now call a hearing on the matter, although the procedure—first of its kind at every stage—is not certain.

Pennsylvania-Central has not been operating over the route into northern Michigan since shortly after the war began, due to shortage of equipment.



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Right now this machine and others like it are working for Victory, but when war ends they will be available for the production of new materials of peace. Perhaps, then, they could even make your product better, faster, cheaper. We'd appreciate the opportunity of discussing it with you.

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Air Compressors are not only helping speed Victory through vital war production work... they're actually serving behind many battle lines. For instance, they're used in Graco Convoy Lubers (made by the Gray Company of Minneapolis, Minn.), portable service stations that service mechanized units in the field. Wayne Compressors are still available to industry under Government regulations. Wayne Service is available everywhere. Write for catalog.

THE WAYNE PUMP COMPANY
FORT WAYNE, INDIANA



AIR COMPRESSORS

Hawley Diversifies

Manufacturer of pumps and ordnance turns wildcatter on grand scale, sinks 100 wells in 1943 with Standard (N. J.).

John B. Hawley, Jr., of Minneapolis, whose submersible pumps and antiaircraft guns have made a hit with the Navy, has turned his eyes toward a new field. Hawley has become an extensive owner of oil land leases in several mid-continent fields. By his own statement, Hawley is "probably the nation's largest wildcatter," having drilled about 100 wildcats during 1943 out of a total of some 3,000 drilled by all operators.

• **Twin Objectives**—Apart from the commercial aspects, Hawley has two purposes:

(1) To create new industries into which the 10,000-odd skilled employees of Hawley's Northern Pump Co. can be

BACK IN SERVICE

Crack trains again roar through Denver & Salt Lake R.R.'s Tunnel No. 10 (below) after a 70-day shutdown due to fire damage. To repair the 1,600-ft. bore, 27 miles northwest of Denver, a 200-man tunnel-driving crew worked day and night—installing a concrete lining and relaying the single rail line (right). Meanwhile, traffic of the Denver & Salt Lake and the Denver & Rio Grande Western R.R. was detoured 125 miles via Pueblo. This tunnel is not, as previously reported (BW—Oct. 243, p16), the famous Moffat Tunnel which bores the Continental Divide to the southeast.

siphoned when naval ordnance ord cease.

(2) To help replenish diminished supplies of crude oil.

The oil venture is being conducted partially by Northern Ordnance, Inc., operating subsidiary of Northern Pump, and partially by Hawley with his personal savings.

• **Joint Project**—A year ago Northern Ordnance embarked on an oil exploration program with Carter Oil Co., last producing subsidiary of Standard Oil of New Jersey. Hawley's company took half interest in 40 large blocks of leases ranging from 10,000 to 40,000 acres each. These are in Montana, Oklahoma, Louisiana, Illinois, Mississippi, Kansas, North Dakota, and South Dakota.

More than 50 exploratory wells have been completed by Northern Ordnance. A wildcat on the Gage Dome, about 10 miles north of Gage, Mont., proved a commercial well. Tests are still being made in order to determine its production rate.

Hawley's personal exploratory pro



gram is on blocks of smaller acreage, closer to production than Northern Ordnance. So far these have produced a gas field midway between Oklahoma City and Tulsa and an oil field some six miles west of Big Spring, Tex.

• **A Characteristic Leap**—Hawley's bold step into the petroleum business is reminiscent of his entry into the naval gun mount business. A small manufacturer of hydraulic equipment who won Navy admiration for designing a 93-lb. submersible pump that handled twice as much water as the Navy's best 400-lb. pump, he decided he could make gun mounts faster and cheaper than anyone else.

Taking all the risks himself, he delivered; he is producing five-inch gun mounts in addition to a sizable quota of pumps, projectile hoists, and the like. The Navy has just completed a \$5,000,000 addition to his plant, which now represents a total investment by Hawley and the Navy of some \$25,000,000.

• **Synthetic Flopped**—Not so successful was Hawley's effort earlier in 1943 in synthetic rubber. He invested \$150,000 in a process for producing synthetic which was the brain child of a Pasadena (Calif.) chemist.

The story came to light when Hawley tapped "federal red tape" which delayed the chemist, William Jean, from getting a ton of the natural product from the government's stockpile for "seed" in the process, which was to produce three pounds of synthetic for every pound of natural used.

• **Too Late**—A month later a ton of rubber was released. But in the meantime Hawley had set up a complete duplicate plant at Minneapolis and after ten days' operation abandoned the whole thing when it was found expected results did not materialize.

Power Milestone

Dedication of Bonneville marks completion of 518,400-kw. capacity; Grand Coulee's sixth unit to be added next year.

When the switch was thrown Dec. 14 on the tenth (and last) 54,000-kw. generator at Bonneville Dam in the Pacific Northwest, the big project became officially completed.

• **No Time for Ballyhoo**—Normally, the event would be used as an excuse for considerable fanfare. But officials of the Bonneville-Grand Coulee Administration, deciding this was no time for excessive ballyhoo, contented themselves with a short ceremony before a few invited guests including the governors of Oregon, Washington, Idaho, and Montana.

While the ceremony was in progress, the Bonneville generators (and those at Grand Coulee Dam farther up the Columbia River) continued to hum turning out power for war industries in the area.

Late last month the two dams hit the highest generating peak they have yet attained. In one 24-hr. period, they produced 28,700,000 kwh. Now they are generating about 500,000,000 kwh. a month and 95% of it goes to war industries and military establishments.

• **Wartime Lifesavers**—Even those who doubt the economic feasibility of the two big projects agree that they have been lifesavers in the war emergency. Bonneville-Grand Coulee power is being used, for instance, at the Pacific Northwest's five aluminum plants (Tacoma, Spokane, Longview, Vancouver, and

Troutdale, Ore.) which are producing 6,000,000 lb. of aluminum a year, about one-third of the national total or, as the press agents put it, enough to build 30,000 bombers.

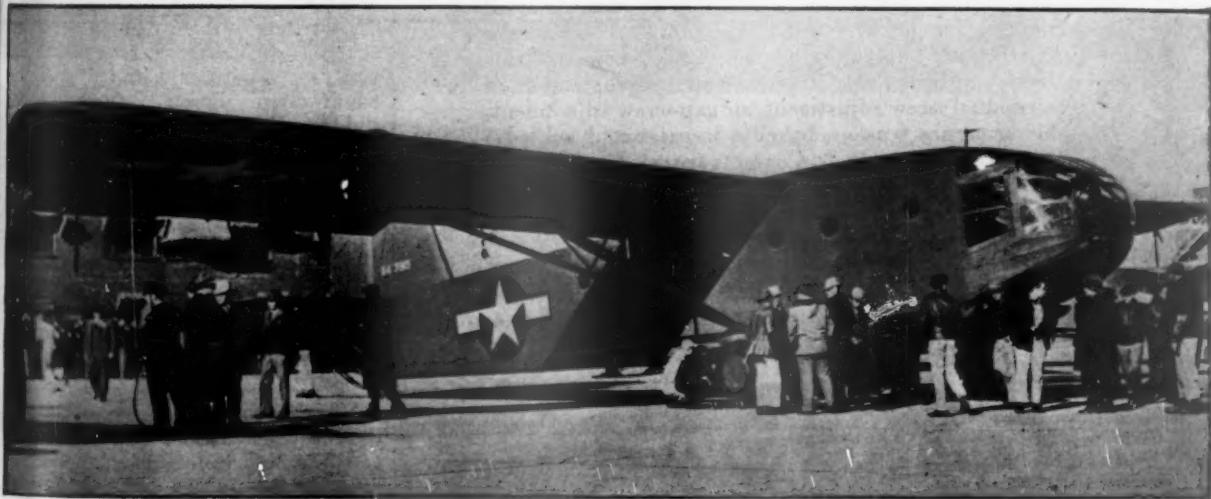
When Bonneville's final generator began to hum, the project's capacity was 518,400 kw. Due to design, the first two generators installed in 1939 were not quite up to 54,000-kw. capacity. Engineers point out, however, that all the generators can be overloaded up to 60,000 kw. each for long periods if necessary.

About \$152,000,000 has been invested by the government in the two dams and their distributing systems. Power revenues are something like \$1,500,000 a month.

• **Sixth Unit Coming**—In November, Grand Coulee added its fifth 108,000-kw. generator. The sixth is scheduled for installation early next year. In addition, Grand Coulee has in operation two 75,000-kw. generators originally destined for Shasta Dam in California, plus two smaller house installations of 10,000 kw. each.

Under construction from Grand Coulee is a line to Covington, Wash., a Seattle suburb. It is 183 miles long and will carry 230,000 volts. The line, incidentally, is attracting wide attention in the electrical industry because it is the first of that voltage to use wooden towers and other substitute equipment which engineers have devised to get around metal shortages. It will be completed by the end of next year and will cost about \$3,900,000.

The new line will parallel one of 170,000 volts which already runs into the Seattle area. A third line (230,000 volts) is now in operation to Seattle from Bonneville's substation in Vancouver, Wash.



GLIDING GIANT

Approved in recent tests at Minneapolis, the largest Army glider ever built

is now coming into mass production. Details of Waco Aircraft Co.'s YG-13 glider (above) are still held up by censorship, but it's much larger than the

current CG-4 model which carries 15 men. The new ship is being built under Waco license by Northwestern Aeronautical Corp.; and Ford Motor.



COOK Engineers Satisfy Another Request

Recently Cook Electric Company was asked the question "Can you design and manufacture an improved Type B-2A Relay?"

The B-2A is one of the most widely used, most versatile of all aircraft relays. The answer to that question is shown in the above illustration. This illustrates the Cook version of this popular relay, with its many improvements: wiping action on contacts, residual screw adjustment, air gap screw adjustment, adjustable armature tension, bakelite impregnated silk covered coil and marked terminals. Contacts are rated at 25 amps., 29 volts DC continuous—100 amps. surge. Single pole single throw normally open contact combination with double break. Coil operating range 18-29 volts DC.

If you are not satisfied with equipment "as it is"; if relays that were "good enough" are no longer good enough to suit you, if deliveries are a problem, or if you have an unusual or difficult engineering problem, call or write to Cook Electric Company.



2700 SOUTHPORT AVENUE • CHICAGO 14, ILLINOIS

48 • General News

Steam Standby

Federal projects, long on hydroelectric plants, feel need of supplemental steam, so Ickes bids for Army generators.

Interior Secretary Harold L. Ickes has obtained President Roosevelt's support for a move which promises to bolster federal power projects in one of their weakest spots—steam-driven capacity with which to firm up undependable hydroelectric power.

• Shopping for Generators—Secretary of War Henry L. Stimson was asked by Ickes to give federal power authorities first refusal on four 5,000-kw. generators at the Oklahoma Ordnance Works, which is situated 40 miles downstream from the Pensacola Dam of Ickes' Southwestern Power Administration located on the Grand River in northeast Oklahoma.

A copy of Ickes' letter went to the President, who wrote Stimson concurring in Ickes' request and asking for a complete list of such Army-controlled stations.

• Short-Circuits Utility—Ickes, who made his move after a southern utility company attempted to buy the units in one such ordnance plant for postwar delivery, apparently has started a program which may result in the generators at 15 of the 17 ordnance plants being tied in with various Interior Dept. projects, added to the Tennessee Valley Authority's system, or made available to Rural Electrification Administration cooperatives.

The 17 plants are in 15 states. The nine east of the Mississippi contain about 190,000 kw. Six, totaling 130,500 kw., could easily be tied into the TVA system. Of the eight plants west of the Mississippi, four, totaling 66,500 kw., conceivably could be tied into the Southwestern Power Administration, and two of these are in Pensacola's backyard.

• Other Possibilities—Two more, of 32,500 kw., could supply existing REA co-ops. Another 10,000-kw. plant is within reaching distance of war-deferred federal hydro developments. Two of them are out of the present federal power picture.

NO SOLOMON HERE

The Supreme Court last week tossed back to Colorado and Kansas their 42-year dispute over the waters of the Arkansas River, which flows from the Colorado mountains into Kansas, and is used by farmers in both states to irrigate many thousand acres of farmland. The court suggested that the states settle it by negotiation because of "the delicate

Business Week • December 18, 1943

FINE FINISH IS VITAL

Internal Grinding with **NORTON WHEELS**



When the speedy "P-51" Mustang fighter returns to earth, the landing gear is supremely important. North American Aviation builds them precisely, finishing parts to assure dependable and flawless operation.

For this internal grinding operation on a landing gear bushing, a Norton 3860-K5BE grinding wheel is ideal. Combining the features of the Norton 38 Alundum abrasive and BE bond, the wheel has the cool grinding action necessary for heat-sensitive alloy steels and gives the high finish required by the aircraft industry.

NORTON COMPANY, Worcester 6, Mass.

Behr-Manning, Troy, N. Y., is a Norton Division

NORTON ABRASIVES

Is this your line of thinking?

... in connection with our post-war plans . . . we are confronted with certain manufacturing operations requiring clean air, and others involving grinding dust . . . we wish information on the use of your equipment . . ."

OUR POST-PEACE PLANNING DEPENDS ON YOU!—That's an unusual statement—but it's actually a fact. For until we know what your dust problem is—we literally can't go to work—even though the equipment, around which all AAF dust control systems are engineered, is available.

Shown above is an excerpt from a letter just received by us. It is typical of so many inquiries from manufacturers now engaged in war materials production, we felt it worth while to pass their thinking on to you.

There are many advantages to

AMERICAN AIR FILTER CO., INC., 387 CENTRAL AVE., LOUISVILLE, KY.
In Canada: Darling Bros., Ltd., Montreal, P. Q.

starting NOW to think about your post-peace dust problems. For instance—priorities won't be automatically lifted when fighting stops—and there will develop immediately a rush for needed dust control equipment that can't be intelligently supplied without careful planning and engineering.

May we, therefore, suggest that you send for literature NOW preliminary to discussing your problems soon with one of our engineers. There is no obligation. Ask for "AAF in Industry" an illustrated booklet which describes the complete AAF line.

ENGINEERED **AAF** **DUST CONTROL**

WORLD'S LARGEST MANUFACTURERS OF DUST CONTROL EQUIPMENT

and complicated" nature of the questions involved.

Colorado regards the verdict as a victory, however, since it objected violently to a proposed solution by Charles C. Cavanah, special master named by the court, which would have given Colorado 925,000 acre-feet annually and Kansas 185,000 (BW-Jun.26 '43,p50) which, however, Colorado would have had to let flow down to Kansas during the summer growing season when it is most needed in both states.

The court, in addition to tossing Cavanah's proposal out, enjoined Kansas water users from bringing injunction suits against Colorado water users. This is the device Kansans have used to carry on the dispute since 1933, when the two states signed an agreement that Kansas was to have 77,000 acre-feet of water yearly "on demand."

Ceilings on Nuts

OPA ceiling keeps holiday prices in line; combination of boom demand and shortage of labor affects market.

If nuts are harder to find on grocers' shelves and at nut shop counters, blame (1) lack of manpower to harvest and process the bumper crops, particularly on the West Coast; (2) lack of carry-over nuts that usually bridge the gap between crops to the extent of 20% to 25% of the year's sales; (3) record demand stemming from increased purchasing power and the relative scarcity of candy.

• **Prevents Skyrocketing**—Last month OPA halted the steady upward trend of nut prices by imposing ceilings approximately at current levels—which are at least twice prewar figures—to prevent them from skyrocketing over the holiday period when the demand is greatest. (Half the year's retail sales are usually made from October through December.)

The order brought howls of protest from some operators, who claimed they couldn't buy at going prices and still sell at specified ceilings. Others criticized it for being 45 days too late. Nuts are still not coming to market in the usual quantities because of the labor shortage, and the scarcity is expected to continue until after the holidays.

• **Demand Sets Record**—Some wholesalers gloomily predict black market operations will result from ceilings. The current demand for domestic nuts is easily 250% of prewar sales, and 175% greater than a year ago. Imported nuts usually supply a third of our total consumption; most imports have been cut off.

• **Crop Figures**—This year's crop of the four major domestic tree nuts is gener-

according to U.S. Dept. of Agri-
culture estimates (figures in tons):

	1943	1942	1935-39 (Est.)	Average
High walnuts	65,700	60,600	53,760	
Bonds	16,000	19,900	14,180	
Butts	6,560	4,270	2,380	
Total	53,402	40,424	33,636	

Labor **Unavailable**—Wild nuts, like pecans and black walnuts, will be scarce because of the labor shortage, since they are usually harvested and cracked by general farm labor. Young people in the South, who used to sit at evenings cracking black walnuts and eventually wholesaled for 22¢ a pound, now find more lucrative jobs. Although the price has jumped from 12¢ to 75¢, much of this year's heavy crop may be wasted for lack of labor to harvest and crack it. An exception is California crop, organized on a commercial scale.

Price Situation—Today's wholesale prices, substantially unchanged by the price ceilings, reflect higher prices paid for other farm products competing for limited supply of labor. Dealers point out resignedly that farmers cannot be expected to produce nuts for less than twice their prewar return. Preceiling wholesale prices for top-quality shelled nuts compare with those of other years approximately as follows:

Prewar	1942	Preceiling
activated pecans	33¢	70¢
bonds	40¢-50¢	60¢
butts	23¢-34¢	60¢
black walnuts	42¢	70¢
		82½¢

Household Item—Biggest outlet for domestic tree nuts is through regular retail channels ending in over-the-counter sales to housewives, although industrial

NUT PROMOTION CUT

For 25 years, the California Walnut Growers Assn. has put on a big holiday campaign of color pages in the Christmas magazines to sell its crop while consumers were in an expansive mood. This year the campaign was cut in half because all the walnuts already have been sold.

The association has walnuts, but none of its own. The supply left in its warehouses in Los Angeles is stored there for distributors who have paid for them.

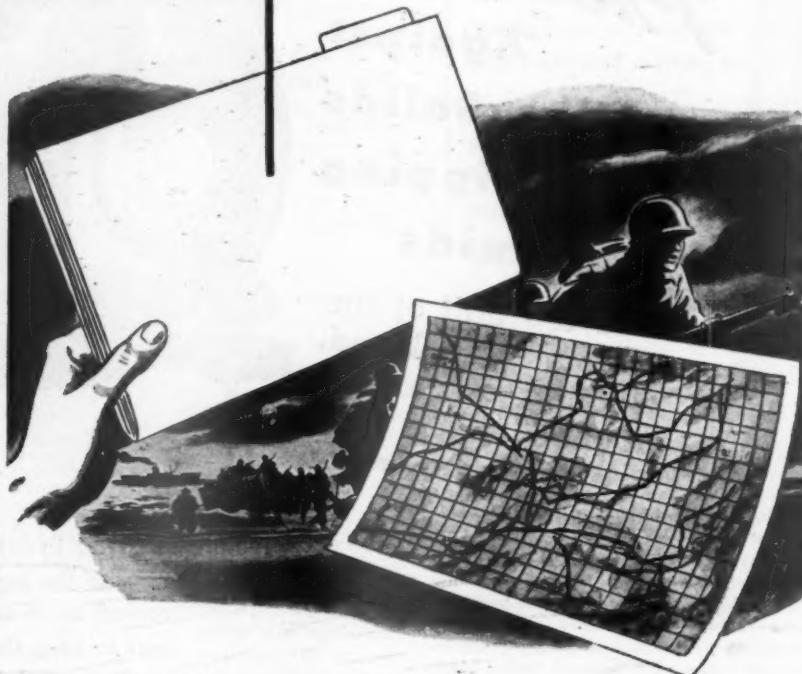
The association's staff of dealer service men who dress displays for grocers has been reduced to a minimum. Last year's display material is being used to save paper.

The 1943 slogan to consumers is, "While they last, make the most of walnuts."

WITHIN THIS FILE FOLDER is a complete word picture of a strategic enemy invasion area. Available for use in planning future actions and campaigns, the information it contains may shorten the war by days, weeks, or even months. Its accuracy holds the fate of hundreds of American fighting men.

SECRET, URGENT

and EXACT!



Gathering all the large and small facts required to conduct a war on foreign soil is a herculean task. Those who do it range in their researches from the public libraries to refugees, engineers and commercial travelers with long experience in the alien lands. Typical wartime investigations call for reports and analyses that frequently run into hundreds of pages.

Critical paper work like this is expedited by the Dictaphone method of accurately recording information at the convenience of the investigator.

Today in war industries and vital Government offices, plans, instructions and memoranda that speed our victory drive are being dictated to Dictaphone dictating machines. Meanwhile, many new Dictaphone electrical recording devices developed in the Dictaphone Research Laboratories at Bridgeport, Conn. are serving our fighting men at home and on the battle fronts. In the days of reconstruction, these too will contribute to save time and effort in business offices everywhere.

Dictaphone Corporation, 420 Lexington Avenue, New York 17, N. Y.



DICTAPHONE

DICTATING AND RECORDING EQUIPMENT

The word DICTAPHONE is the registered trade-mark of Dictaphone Corporation, makers of dictating machines and other sound recording and reproducing equipment bearing said trade-mark.

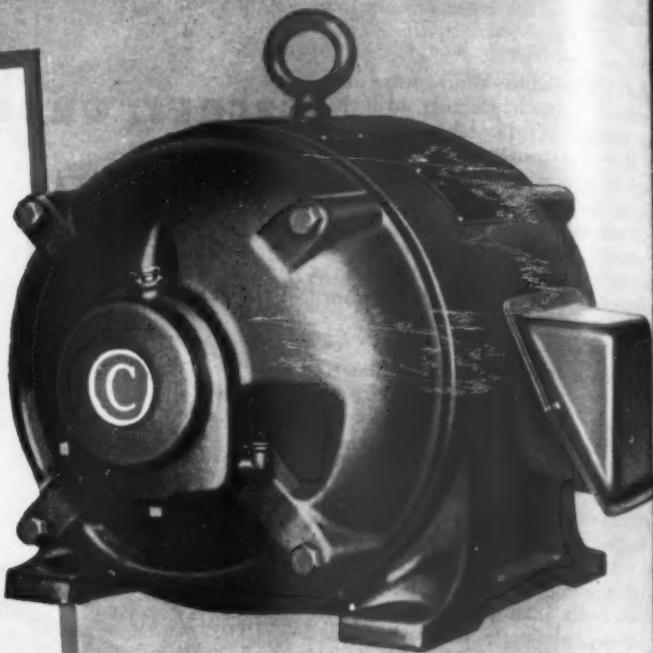
DICTAPHONES AVAILABLE
Dictaphone equipment is available to firms whose work is essential to the war effort.

P-688

CENTURY FORM J MOTOR

Protection Against Falling Solids and Dripping Liquids

The top half of the motor is closed. Cooling air enters at both ends and is discharged below the shaft line.



The upper half of the Century Form J general purpose, open, continuous duty motor is closed to minimize the possibility of dripping liquids or falling solids entering the vital parts of the motor.

This added protection feature is made possible because of the scientifically designed Century mechanical ventilation system. All motors generate heat, so if the insulation is to have long life, the heat must be rapidly

carried away from the windings. Two powerful fans located behind each

bearing bracket draw cooling air "IN" through the bearing bracket openings. This cooling air is deflected first around the bearings to keep them cool and then across the windings and to air passages between the outer surfaces of the magnetic core and the frame—the heated air being finally discharged "OUT" through the openings located at the sides and bottom of the frame.

These modern, protected, industrial, general purpose motors meet the requirements of more than 80% of all polyphase motor applications. This Form J construction is at present available in 2 to 15 horsepower four-pole frame sizes.

Your Century Motor Specialist has full information and his wide experience may well prove valuable to you. We suggest you call him in today.



CENTURY ELECTRIC CO., 1806 Pine St., St. Louis, Mo.
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One of the Largest EXCLUSIVE Motor and Generator Manufacturers in the World.

ers like commercial bakers and confectioners use substantial quantities of some varieties. Retail channels take all of the seedling (wild) pecan crop, as well as practically all the cultivated pecan production, which last year amounted to 47,882,000 lb. compared with 56,984,000 lb. of seedlings.

The housewife trade takes at least 10% of the almond production, 80% of domestic filberts, and about 85% of English walnuts.

Preference Ratings—Mixed nuts are the retail favorite, reports Morrow's Nut House, a chain operation, and peanuts run second.

Dealers are now selling 150% to 200% of their 1941 sales of peanuts and are fearful of being cut back to 100% of 1941 sales because of wartime demands, despite this year's huge crop (BW-Jul. 10'43, p51).

No. 3 in the retail nut parade is cashews. Normally this country buys 10% of India's cashew crop, but few are coming in now. Fourth-best seller in nut shops is pecans.

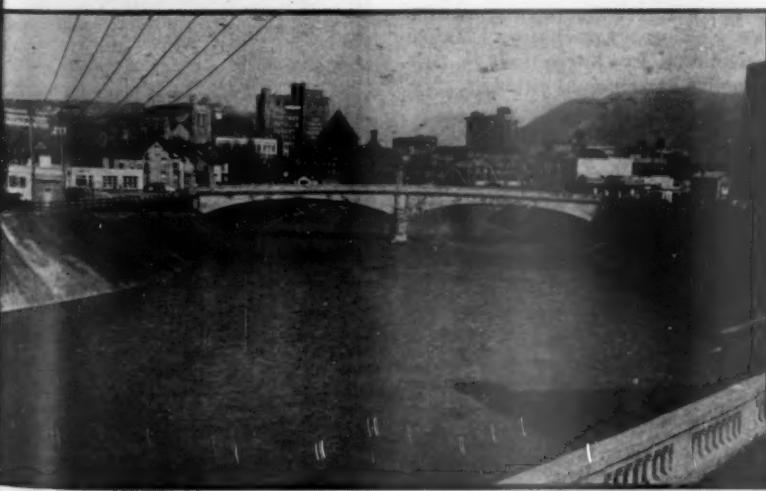
Holiday Rush—Christmas came in October this year for retail nut dealers with land-office sales to fill holiday packages for servicemen overseas.

TEXAS HITS THE CEILING

It's not ethical for state institutions patronize black markets, so Weaver Baker, chairman of the Texas State Board of Control, is petitioning OPA to exempt state institutions from the wholesale price ceilings placed on state purchases last April by OPA.

Baker says that these ceilings have made state business unattractive to many sellers—so much so that when the state advertised recently for \$100,000 of purchases, there were no bids.

Some 21,000 wards of the state are faced with drastic shortages in essential foods and clothing.



Deepened channels and concrete river banks (above) now protect flood-famed Johnstown against rising waters and a historic industrial stigma.

Memorial Revised

Instead of celebrating its flood anniversary, Johnstown will plug its new floodlessness, thanks to U.S. Engineers.

Ever since the South Fork Dam burst on May 31, 1889, letting loose waters that killed 2,142 persons, Johnstown, Pa., has carried the stigma of "The Flood City," causing some industrialists to bypass the community.

• **Fruit of Second Flood**—Out of another record flood in March, 1936, when \$42,000,000 in property loss occurred, came agitation for protection projects, which, now completed, enable Johnstown to conduct a drive this month to attract new business by advertising itself as "The Flood-Free City."

Under supervision of the U. S. Army Engineers, an \$8,670,000 river channel improvement project has just been finished, five years after work was commenced in August, 1938. Financed with federal funds, the improvement consists of engineering and relining of the channels of the congested Stonycreek, Conemaugh, and Little Conemaugh rivers; the river banks were lined with reinforced concrete paving.

• **Drainage Overhauled**—Two railroads, a highway, and utility structures were relocated to avoid unreasonable obstruction to the flow of water. Sewers, drains, bridge piers, and other structures were altered. All this was done to increase the hydraulic efficiency of the channels so as to insure that the highest waters will roll past the city without causing damage.

Secure in the belief that its flood troubles are ended, Johnstown, steel and coal center, opened a six-month observ-



"Because

SPEEDI-DRI

has done such a splendid job, we have never used anything else,"

writes

Walter Gilby, Personnel Manager,
DRIVER - HARRIS COMPANY
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"Since using SPEEDI-DRI our floors have been kept clean. We have also eliminated the hazards of fire and slipping. The two men who used to spend all their time cleaning our concrete floors have been given other work to do."

Few people bother to write letters of praise about a product that simply does the job it was sold to accomplish. It is only when it exceeds their expectations that they write. The hundreds of letters in our files praising SPEEDI-DRI performance are convincing testimony of the effectiveness of this product. Here are brief excerpts from other letters: "It soaks up oil and grease like a sponge." "It brightens up the whole plant." "It has reduced our cleaning costs." "It has prevented many slipping and falling accidents and enabled us to reduce accident insurance rates." "It has improved our employee morale—especially among our women workers."

A product that can do all that, and that costs as little as SPEEDI-DRI, deserves a trial in your plant. Write for a demonstration or a free sample. If you use water or water-soluble oils, ask for SOL-SPEEDI-DRI.



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Higher Productivity for either OLD or GREEN HANDS!

There's always a "way out" of the tough spots that industry often faces due to no fault of its own. Today's growing manpower famine is no exception. Through modern industrial instrumentation, *manpower can be effectively multiplied by increasing the productivity of the workers you now have!*

Even the most exacting jobs are reduced to simple routine when you install Foxboro Measurement and Control Instruments on operations demanding critical temperatures, pressures or flow rates. Automatically, workers are supplied with exact

measurements to guide them . . . graphic records are provided wherever needed . . . often, manual control is wholly replaced. "Green hands" upgrade faster . . . produce accurately, in quantity, after only brief training. "Old hands" . . . freed from guesswork and details . . . can apply all their skill and experience toward better, faster output!

Why not lick *your* manpower problems by boosting worker-productivity with Foxboro Instruments? The Foxboro Company, 120 Neponset Ave., Foxboro, Mass., U.S.A. Branches in principal cities.



For continued outstanding production, The Foxboro Company has won renewal of the Army-Navy "E" Award.

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Reg. U. S. Pat. Off.
MEASUREMENT AND CONTROL SYSTEMS

Foxboro Temperature Controllers on coffee roasters save operators' time and enable closer control of quality and color.

Operation of complex chemical processes like this evaporator system becomes simple routine under Foxboro Instrumentation.



ance which will end May 31, the 52nd anniversary of the flood. As part of the campaign to spark postwar planning and rejuvenate the city, national and state officials will visit the district, and the 100,000 residents of Great Johnstown are planning to use all possible means to let the world know that the city has been freed from the menace of floods.

Oyster Sideline

Stream pollution charges lead paper firm to try raising oysters—virtually by hand—and it has grown to quite a business

The declining yield of nearby oyster bottoms has put a Virginia kraft paper concern in the oyster business and led it, as a sequel to a scientific study, to establish a farm for the hand cultivation of oysters.

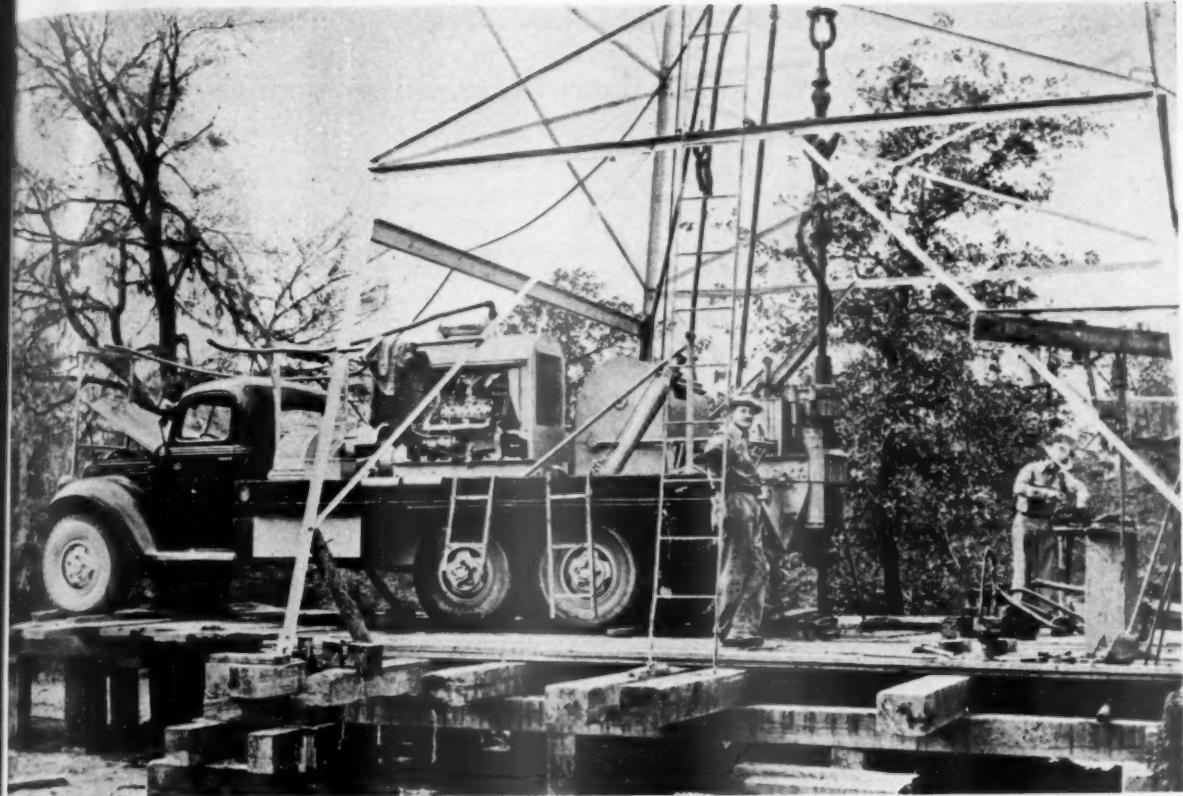
• Troubles Studied—Chesapeake Corp. of Virginia operates its mill at West Point, at the head of the York River estuary. Oystermen complained of the effluent from the mill.

The company undertook a study in 1937, which soon showed that a principal cause of the declining production of the oyster beds was the mudding over the river bottom. Some means had to be found of obtaining a firm surface on which the oysters would be able to attach themselves.

• Planted on Platforms—One experiment was with the customary process of dumping oyster shells or other similar material on the bottom. Other studies



Seed oysters from Long Island are planted in baskets in early spring; by fall they more than double in size on Sea-Rac's platform farms.

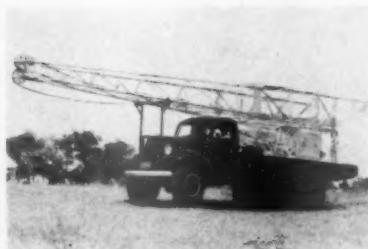


YOU DON'T LOCATE AN OIL WELL WITH A WILLOW WAND

To hear many amateur economists talk, increasing the nation's gasoline supply is simply a matter of stepping up production. They forget, if they ever knew, that it is a "long haul," literally and figuratively, between the discovery of a new oil field and the gasoline pump at the corner service station.

First you must find your oil pool—and that isn't done with a peach branch, or willow wand. Geologists and seismograph operators must travel over and explore thousands of acres of "likely" territory, for every test well that is drilled. Oil companies are good gamblers—they have to be—but even they don't sink thousands of dollars into a hole until they are pretty sure they will find oil at the bottom.

To carry on these exploratory and testing operations, automotive vehicles of unusual ability are required. They have to



have claws and web feet, almost, to travel across country, climb mountain trails, ford streams, push through hub-deep mud and sand. That is why Marmon-Herrington All-Wheel-Drive converted Fords and Heavy-Duty trucks are so popular with the men in charge of these and other vital operations of oil companies. They do the job, where other trucks fail.

America's known oil reserves are running dangerously low. The demands of military operations, most of which are being met by American production, have almost reached the astronomical figure of one and one-half billion barrels, annually.

Writing in Collier's, Frank B. Taylor reports that, if we fail to find new oil fields, we will exhaust our known domestic oil reserves in twelve years. Yet, in 1942, the new oil located failed to equal the oil produced, by more than a half billion barrels.

Having had a close relationship with the oil industry for many years, this company has an unusual appreciation of the seriousness of America's oil problem. We hope, sincerely, that ways will be found soon, to release men and materials for a renewed campaign of petroleum exploration and production—to the end that this will not be another example of "too little and too late."

★ Buy an Extra Bond — Back the Attack!

MARMON-HERRINGTON

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To the Men of American Science and Industry

working to
further American Good Living . . .

WE DEDICATE

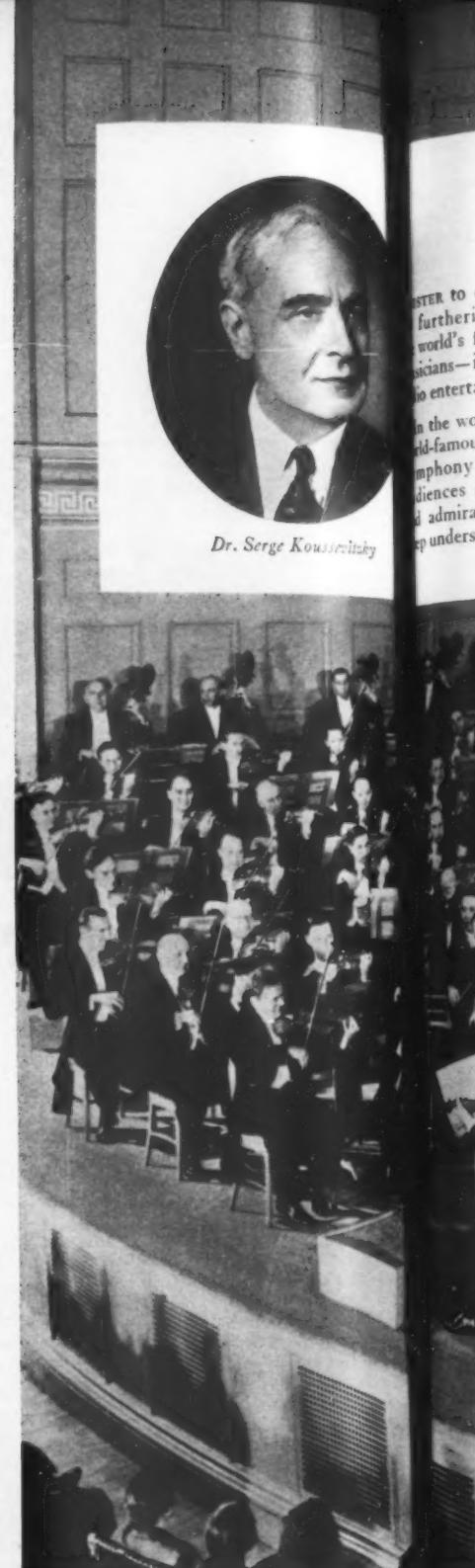
our Radio Sponsorship of the
World's Finest Music, by the
World's Finest Concert Orchestra . . .

THE BOSTON SYMPHONY

Starting December 25, at 8:30 P. M. (E.W.T.)
over 161 Stations of the Blue Network,
from New England to California



"ENGINEERING THAT AIDS ALL INDUSTRY
FURTHERS AMERICAN GOOD LIVING"



Allis-Chalmers invites every reader of BUSINESS WEEK to tune in next Saturday and Saturdays thereafter

ESTER to every science and industry furthering Good Living—music, the world's finest, by the world's finest musicians—is Allis-Chalmers' choice of entertainment for America.

In the words of Serge Koussevitzky, world-famous conductor of the Boston Symphony itself: "Today American audiences show not only their love and admiration of music, but also a deep understanding of the necessity and

importance of musical art in the progress of humanity."

Americans also enjoy the highest standard of living of any people on earth—the finest food, clothing, homes and transportation—because they are the mightiest industrial nation on earth.

That is why we respectfully dedicate to the Men of American Industry, our radio sponsorship of the Boston Symphony—why we have chosen it as the

vehicle to carry to the American public the Allis-Chalmers story . . .

Engineering that aids all Industry—furthers American Good Living.

Today over 1600 Allis-Chalmers products are helping America to the earliest possible Victory—*after the war*, the same engineering will mean Good Living, the American Way.

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however, showed that oysters could be grown successfully when raised above the bottom on platforms.

Dr. T. C. Nelson, head of the department of zoology at Rutgers University and biologist for the state of New Jersey, had for a number of years been growing oysters experimentally in wire baskets. Similar culture had been tried in Australia and Japan.

- **In and Out of the Water**—Chesapeake Corp. started a small basket farm in the spring of 1938. This was enlarged, and by the fall of 1942, it consisted of 11,000 tar-dipped, spot-welded wire baskets, resting on three miles of creosoted sills built across the tide-swept mouth of Queens Creek on the York River, 30 miles from the oyster-famous Chesapeake Bay.

Tides play an extremely important part in the culture of these oysters, trade-named Sea-Rac. On the average, the Sea-Racs spend 18 hours a day in eating, during the two underwater periods when the tide is in. Each oyster pumps through its gills 40 or more gallons of water a day.

- **Flexing Its Muscles**—The other quarter of the oyster's day is spent out of the water, during low tides. These periods

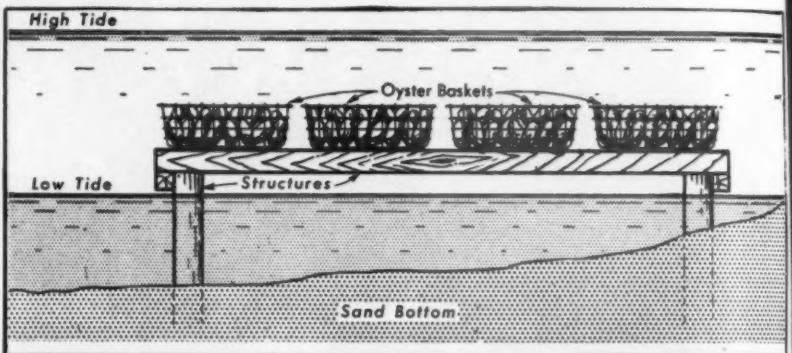
are largely responsible for the flavor and keeping qualities of Sea-Racs. Out of water, the oyster snaps its shell shut and holds it closed by means of a strong muscle. The resultant muscle growth more than doubles the normal keeping qualities, for oysters shipped in the shell should remain alive and tightly closed until they are used.

Sea-Racs have been known to keep for three months at a temperature of 40 degrees without losing their shell liquor.

- **Sorted for Shape and Size**—In trap culture, oysters spend only their last season in baskets. Early in the spring hand-picked oysters of the correct size and shape are placed in the trays. So far, seed oysters from Long Island Sound have been used because it has not been possible to find in Chesapeake Bay a source of the well-formed, uniform size desired.

Each year large quantities of shell are planted in windrows between the rows of baskets with the hope that from this source future seed requirements can be obtained.

- **One Season's Growth**—Seed oysters obtained from the North are about three years old and count from 450 to 500 to the bushel. In the racks in the



Sea-Rac oysters spend their fourth and last year in platform-held racks (above), staying under water 18 hours daily, out the rest of the time. Learn-

ing to clamp shut their shells when exposed, strengthens shell muscle, accounts not only for flavor but doubles their normal "keeping" qualities.



flavor and are ready for market the following fall. It is not unusual for 500 oysters, one bushel in the spring, to fill a 2½ bushel barrel in the fall.

But the growth hasn't proved pure gravy. Seed oysters may be bought for 5¢ each, resold as mature Sea-Racs for as much as 3¢ each to high-toned restaurants and hotels which may serve a half-dozen on the half shell for 60¢ and up. Thus profit margins haven't been the worry to date; the trouble has been in surmounting production hurdles.

Seabees Upset Plans—And the greatest disaster wasn't one that could have been foreseen. The trouble began in September, 1943, when the Seabees' training center at Camp Peary was built—the thriving farm of two million Sea-Racs being part of the area taken over. By Nov. 15, the whole project had been moved to Weeks Creek on the Rappahannock River, about five miles above Urbanna.

With the Sea-Racs just fairly established in their new home after the 75-mile move, the tides, so important to their well-being, proved their undoing. Early in December, strong west winds forced the tide down extremely low and kept the water from coming back over the oysters. For three days the Sea-Racs were exposed at freezing temperatures, and they all died.

Tides Controlled—To conquer this tide problem a timber and oyster-shell dam was constructed across the mouth of Weeks Creek.

Now the new crop of Sea-Racs at Weeks Creek has grown, spawned out during the summer, and taken on fat. The crop, ample to take care of old customers, will be shipped to exclusive eating places from Massachusetts to Florida, and as far west as Minnesota and Arkansas.

MILEAGE CURB URGED

Tests of a federal mileage coordination plan which were made in Atlanta last August (BW—Sep. 11 '43, p18), and in Boston starting in September, have proved so successful that its adoption is being urged in all areas of the country in which federal departments and agencies are concentrated.

Average mileage saving in the Atlanta and Boston tests amounted to a trifle over 40%, or more than 500,000 miles a month for these two areas alone.

The plan is operated through a centrally located dispatching center which keeps track of all trips made by vehicles operated by federal agencies. Duplicating trips are eliminated and government men without their own means of transportation can often pick up rides in cars of other agencies headed for the same destination. In this way many rail and bus trips can be avoided.



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Free Enterprise

THE OPPORTUNITY AND OBLIGATION TO COMPETE

WE can be prosperous beyond our dreams—all of us—workers, farmers, and business men—but one of the prerequisites is the self-discipline of accepting competition for ourselves as well as others.

* * *

Free enterprise does not imply the freedom to use any or all means to make a profit. It does not mean the right to monopolize. *It means the opportunity and obligation to compete.*

Competition requires *independence of action, free access to the market, and no large degree of control over the price* by any buyer or seller. In general, the larger the number of sellers and the more easily buyers can shift from one seller to another, the higher will be the degree of competition (and vice versa for buyers).

But let us not get too academic or go off the deep end. We cannot have perfect competition. We cannot subdivide businesses and labor unions into tiny units to make a multitude of buyers and sellers in each market; we cannot reduce our rich variety of products to a few rigidly standardized items; we cannot educate people to judge quality precisely; we cannot eliminate the costs of bridging space between buyers and sellers. On the other hand, have we gone as far as is practical and desirable in these directions?

We cannot even have a system of highly "sensitive" prices, that is, prices which fluctuate immediately in response to every minor change in demand and supply. This would occur in the dream world of competition-to-the-nth-degree. It cannot occur in the real world, or even in the ideal world of competition best suited to physical facts and human qualities. The economies of large-scale enterprise, the need for adapting products to human wants, the costs of transportation and the costs of issuing and acquiring market information put severe limits on price sensitivity.

Economists tell us that if prices were extremely sensitive, business booms and depressions would be much less severe—provided our stock of money remained fairly constant. But with the somewhat limited degree of sensitivity which is practicable in the economy, price and wage changes cannot prevent severe declines in

business activity. We cannot count on competition alone to cure depressions. We must look mainly to other kinds of measures to prevent mass unemployment of men and machines.

If we cannot have prices which fluctuate with every small change in demand and supply conditions, we can work toward—and achieve, if we really want it—a system in which prices and wages are at least roughly responsive to long-run changes in demand and supply, a system in which most markets are not dominated by individual businesses, groups of businesses, labor unions, or farm organizations, and in which prices and wages are maintained at levels consistent with free access to markets and to jobs.

In any kind of an economic system there must be some means of determining prices, wages, and profits, and of bringing labor and capital into employment in the industry and place where they are most needed. There are two ways to do this: by administrative fiat or by the impersonal processes of the market. The first of these is typical of the totalitarian state; it frequently involves destruction of individual freedom or fumbling mismanagement. During the war all of us have had some experience with patronizing and paternalistic treatment by the state; we have found out what it means to be pushed around by bureaucrats; and we have discovered that the political determination of prices, wages, and profits leads to chaos when self-interest supersedes the fine fever of patriotism—as it eventually does. I do not mean to imply that we can do without controls over prices, production, and distribution in time of war; but I do suggest that we can learn something from their operation. Even with a united national purpose these controls work badly when human abilities are inadequate for the superhuman task, when personal or departmental jealousies crop up among officials, and when pressure groups try to prey on the rest of the public. Every day more Americans are beginning to understand why our forefathers feared the caprice and tyranny of power.

The impersonal processes of the market in determining prices and wages and in allocating productive resources will, in normal times, save us from the fumbling of bureaucrats and from the babel of confusion, un-

ertainty, and annoyance produced by their regulations. But these market processes will not save us from paying all to those who monopolize and restrict entry to markets or jobs.

If we want an economy in which we are free to try out new ideas, develop new products, and introduce more efficient methods of production, if we want an economy in which there are great opportunities for men of imagination, inventiveness and energy, if we want an economy wide open to progress, then we must have a free field and fair competition for all comers—without collusion as to prices, markets, or production. This is the only basis on which we have a right to demand freedom from governmental regulation for ourselves and on which we can combat monopolistic tendencies in other quarters.

Let us stand squarely for the principles of the anti-trust laws and against all collusion and combination in restraint of trade. Let us insist that the government review with a critical eye every combination and consolidation which might restrict competition. Let us face frankly the problems of economic power arising out of price leadership and encourage every honest effort to find means to deal with them. Let us not shrink from questions as to whether some great aggregations of plants are too large for efficiency, free entry into the industry, and a free price. While we resist the efforts of the Department of Justice to extend the anti-trust laws by far-fetched and distorted interpretation, and while we fight every attempt to use them as a tool of persecution, let us cooperate in sincere efforts to modernize these laws and extend them by specific legislation to monopolistic practices they cannot now reach. I do not have a simple formula for this, but I believe we must try to find one.

We can then, better face the problem of the growing monopoly in labor which is threatening to make the free enterprise system unworkable. Today labor is going through a stage of empire building reminiscent in some ways of a similar stage in business three-quarters of a century ago. Witness the same buccaneering spirit, the same concentration on selfish interests, and the same disregard for the public welfare. Business leaders learned the hard way that the public will eventually rise up against those who prey upon them. Will our labor leaders be wiser? The right to collective bargaining to protect the weak position of the individual employee is one thing—but the grant of unlimited monopoly privilege to combine into a private government which can dictate its own terms to businesses, industries, communities, and even to the government itself, and which can start a wage-price spiral such as to hinder the war

effort and make full prosperity impossible in time of peace is something quite different. We need to find a middle way which will prevent employers from exploiting employees but which does not sow the dragon's teeth. The exercise of arbitrary power by labor threatens not only business, but also all workers outside the unions and all those dependent on pensions and savings for their existence, and ultimately, of course, the well being of union workers themselves.

The idea that the labor problem can be solved if great, powerful organizations of employers will sit down with great, powerful organizations of labor is a delusion. If our experience in the N.R.A. and in the war teaches us anything, it is that the best that can be expected in the long run from such a situation is an armed truce with intermittent civil war. And every truce would be a monopolistic arrangement to take advantage of those not members of the great organized groups. Business and labor unions, whenever confronted with postwar readjustments that are unfavorable to them will be sorely tempted to protect their own special interests at the expense of the public. There will be efforts on the part of businesses, abetted by labor unions, to limit productive capacity, to raise tariffs, to obtain subsidies, and to maintain prices at artificially high levels. The unions will oppose labor saving changes and will seek higher wages even in areas and industries of surplus labor. Already demands are emerging for direct joint action by business, labor, and agriculture to solve the transition problems of special concern to them. While these groups should have every opportunity to register their own self-interest, we cannot entrust our fate to decisions made by pressure groups. If experience is any guide, such coalitions will be almost certain to restrict opportunities for progress and expansion, to exploit the public, and ultimately to injure even the businesses, workers, and farmers included in them. We cannot afford a postwar N.R.A. Resort to temporary government regulation in the transition from war to peace may, however, be necessary in cases of great hardship.

We can be prosperous beyond our dreams—all of us—workers, farmers, and business men—but one of the prerequisites is the self-discipline of accepting competition for ourselves as well as others.



President, McGraw-Hill Publishing Company, Inc.

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THE WAR—AND BUSINESS ABROAD

Iran's Precarious Future

Three-power guarantee of country sets up development of backward economy as No. 1 problem; if U.S. and Britain can't do it, Russia certainly will take the job on ultimately.

Along Teheran's broad, tree-lined Shah Reza Boulevard, show street of Iran's capital, there are long rows of modernistic, four-story apartment and shop fronts. But all except casual tourists soon discover that many of them are nothing but facades, behind which there may be the scraggly remains of an ancient Persian garden or just a rubble-strewn field.

The story is that the former Shah, when he set out to modernize his capital, ordered a building program which many citizens could ill afford to carry out. But since, under Iranian law, taxes on a piece of property are not increased, regardless of improvement, until it pays a revenue, one comparatively cheap way of keeping in royal favor was to build an imposing front on which neatly painted shutters remained closed the year round.

• **Another False Front**—The recent Teheran conference (BW—Dec. 11 '43, p42) has raised a similar false front to hide an economic and governmental situation in Iran which needs to be thoroughly investigated by the Big Three powers if they expect to carry out their guarantee of the country's territorial integrity without running into serious trouble.

Few people outside Iran realize how precarious are both the political and the economic situations within this ancient country.

• **Shift in Authority**—When, in 1941, Germany threatened the Russian rear in the Caucasus and the British rear in the Middle East by a possible move across Turkey into Iran, an international deal was made by which Soviet troops occupied the northern third of Iran (along the Caspian Sea) and British troops occupied the southern third of the country (along the Persian Gulf). Oil was at stake in both cases: Russia's biggest supply is in the Caucasus, and Britain's big Anglo-Iranian field centers at Abadan (page 22).

Because the old Shah opposed the occupation move, he was replaced by his son. But the real authority for government shifted from the authoritarian control of the old Shah to the Majless (parliament) which, technically, is representative of the whole country.

• **American Engineers**—The United States entered the picture a little more than a year ago when American engi-

neers, in uniform, entered the country to supervise the mass delivery of lend-lease supplies across Iran to Russia (BW—Oct. 30 '43, p48). From the first, they have included only technical specialists, with the whole question of security left to the Russians and the British.

In the period since the outbreak of the war, but particularly in the last 18 months, Iran has suffered from a tremendous inflation—probably more serious than in any other country in the Near or Middle East.

Wheat prices jumped to seven times prewar levels in other Middle Eastern countries but skyrocketed far above this on Iran's numerous black markets. Meat prices soared to mountainous levels. A secondhand typewriter in good condition fetched up to \$1,000. Speculators offered up to \$20,000 for two-year-old automobiles.

• **Bidding for Transportation**—Though the Persian Gulf Service Command (American engineers handling the job of transporting supplies across Iran to Russia) has speeded up the railroad service and boosted local passenger traffic far above prewar levels, hundreds of people are turned away from the railroad stations each week because there is no

room for them on the trains. As a result there is a growing black market in coveted railroad tickets.

Iran, in a good year, grows enough wheat to feed the country. The crop this year was good. And yet, when the government—urged by the Middle East Supply Center (BW—Dec. 4 '43, p47)—attempted to control wheat prices at reasonable levels, farmers either operated their own black markets or buried the wheat in great mat-lined pits.

• **Climate Aids Hoarders**—In the dry Iranian climate, the grain will keep in the ground for two years without serious deterioration. Meanwhile, there are spasmodic shortages of wheat and flour in the cities as authorities struggle to maintain enough imports to prevent suffering.

In the midst of 1942, when the inflation problem was becoming serious, the Iranian government was encouraged to invite an experienced foreign financial adviser to help steer the country through the inflation crisis.

• **American Selected**—Dr. A. C. Millsbaugh, an American who had held the job from 1922 to 1927 when he could no longer agree with the high-handed economic policies of the old Shah, was asked to return and arrived in Teheran at the beginning of 1943 at the head of an economic mission of twelve American specialists.

He has a five-year contract, receives an annual salary of \$18,000, and hopes to boost his present mission to 60 experts before assuming full responsibility for drawing up Iran's budget, revamping the tax laws, simplifying the country's whole financial administration, attempting to control prices, and providing the funds—from taxes—to improve roads, build irrigation projects, survey

Questions Posed by Teheran Pact

A first-hand examination of the real situation in Iran today reveals dangerous problems which must be tackled and solved if the three-power agreement is anything more than a superficial declaration.

Outwardly, the agreement is a formal acknowledgment by Britain and the Soviet Union that they will remove their troops as soon as the emergency ends. (Though the United States also has forces in Iran, they are solely charged with the temporary job of transporting supplies to Russia, and there never has been any question of their remaining after the job is completed.)

But, from within Iran, it is plain that many other questions must be answered.

Will the country be helped to select a truly democratic and progressive government, or will that weaken

the foreign hold on the oil fields?

Will technical aid and economic advice be given—without bias—or would this set a dangerous precedent to the millions in colonial Asia?

Are the British and American publics—neither of which has a keen and realistic interest in the Middle East—going to be mesmerized into a false security by the pact? The present treaty merely removes troops; it in no way puts an end to the bitter economic rivalries by which weak countries are often controlled, a matter which Stalin—as much as any other political leader—understands.

The background against which these issues will be resolved is here supplied by Business Week's foreign editor who covered Iran intensively on his recent war correspondent tour of the Mediterranean and Middle East.



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the country's mineral wealth, and help create small industries.

• **Powers Are Broad**—Dr. Millspaugh's contract—with clauses which declare no financial obligations shall be incurred in the name of the Iranian government without his consent, and that no one will be added to government payrolls without his approval—appears to make him an economic dictator. Actually he plays no such role.

All through this year, the Majless has successfully resisted his proposal to boost income taxes in order (1) to remove excess funds as an inflation curb, (2) to boost income to cover rising government costs, and (3) to create additional funds to increase hopelessly inadequate government salaries as the best way of ending corruption.

• **Futile Fight on Prices**—In a desperate effort to control prices of necessities, particularly in the cities, he has advocated the opening of government stores in which basic food and clothing items will be sold at fixed prices, but he has been unable—so far—to obtain adequate stocks of goods to make the scheme effective.

In the interim between his first and second visits to Iran, shameless nepo-

tism rather than actual need was responsible for the growth of the Ministry of Finance personnel from 7,000 to nearly 50,000.

• **Resources Undeveloped**—Plagued with terrific heat and very light rainfall except along the Caspian Sea, Iran will never be an important agricultural nation. And yet, experts insist that with intensive, planned cultivation of the lush northern part of the country and modest irrigation in the mountain valleys it can easily cover most of its own food requirements.

Of the scores of foreign engineers now working in the country, all believe that a careful geological survey along the mountain ranges would reveal considerable mineral wealth, but no such survey has ever been made. Greatest resource is one of the richest remaining oil reserves in the world, along the Persian Gulf.

• **Primitive Society**—As a result, Iran has no backbone of industry beyond some handicrafts and the foreign-controlled oil business in the south. It is one of the most backward countries in the Middle East (90% of its people are reported to be illiterate).

Farm methods are almost as primi-

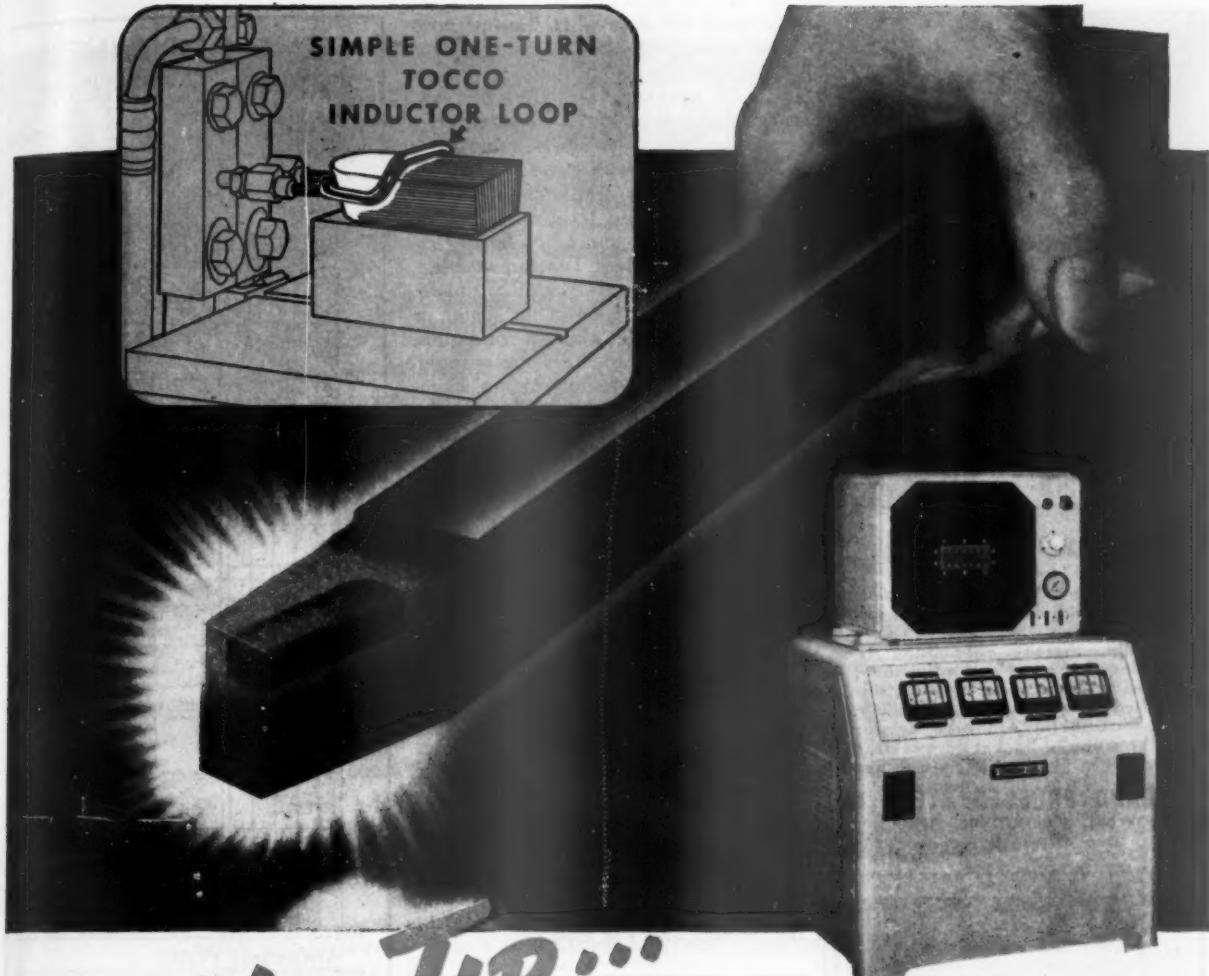
ENGINE CENTER

Near Rio de Janeiro, Brazil is forging an important link in its growing industrial chain—a government-owned plant (below) scheduled to produce Wright Whirlwind engines; the output figures are still pretty much conjecture. After the war, it may make Brazil self-sufficient in auto, tractor, and truck engines—all formerly imported. Financed by U.S. Export-Import Bank credits, the 300,000 sq. ft. of machine shops and foundries ultimately will employ 5,000 workers. For them, a housing project of 1,000 units is going up adjacent to the



plant area. These modern substantial homes (above) are providing the nucleus for a new industrial town of 25,000 persons.





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tive as in the days when Darius' post-road through the mountains of Iran was one of the marvels of his time.

Living standards are abysmally low, public sanitation is almost completely ignored, and mortality is among the highest in the world.

• **The Country's Importance**—This is the country whose territorial integrity Roosevelt, Stalin, and Churchill agreed to guarantee at their Teheran meeting.

With world reserves of oil shrinking alarmingly, the Persian Gulf region is a prize bound to be coveted for a commercial, as well as a defense, supply. But beyond this, Iran is of major importance in the political as well as the economic future.

It is the center of a band of underdeveloped countries which fringe Russia on the south—from Turkey to China.

During the next 20 years, they will be looking to their guarantors for technical aid and economic guidance.

• **U.S.S.R. Isn't Ready**—For the present, Russia is probably too involved with plans for rehabilitating its devastated areas and completing interrupted Five-Year Plans to play a big part in this job (BW-Dec. 4 '43, p112). Twenty years from now, if the job isn't well under way, Russia will almost surely go after the business.

This is why Iran is so important now. And why the Millspaugh plan, if it is accepted, may become a model for economic administrations which may be "sold" to many backward countries in the Middle and Far East.

CANADA

Fire With Fire

Ottawa government plans to combat rise of socialistic party by liberalizing its stand on labor, security laws.

OTTAWA—With the handwriting on the wall increasingly legible, Canada's Liberal Party politicians are studying the tactics of Bismarck and Asquith—two Europeans who liberalized their governments in an effort to stem the tide of labor opposition.

• **Election Worries**—Mackenzie King's administration is now working under the shadow of the rising strength of a socialist political party, Cooperative Commonwealth Federation. Orthodox public leaders and business men fear the party may gain office at the next federal election, due not later than 1945, but which may possibly be scheduled for next year.

Main policies of the C. C. F. are nationalization of leading financial and

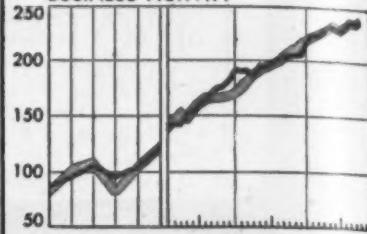
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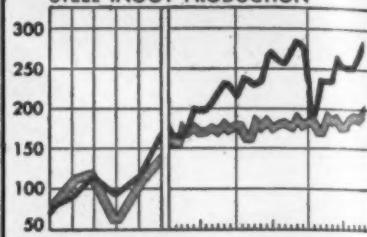
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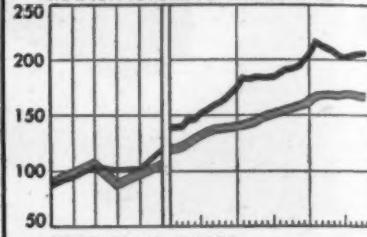
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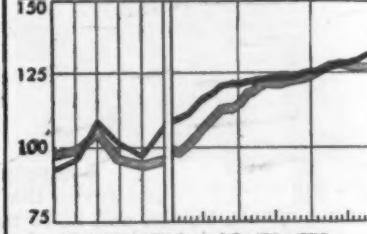
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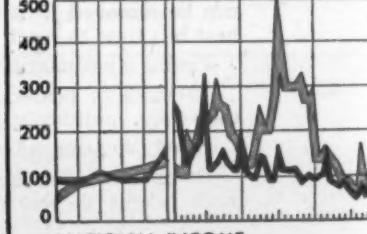
MANUFACTURING EMPLOYMENT



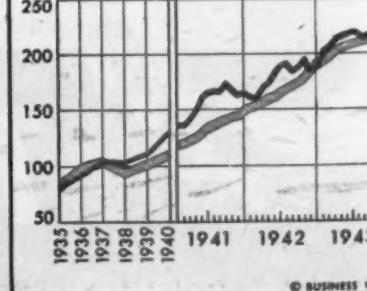
WHOLESALE PRICES



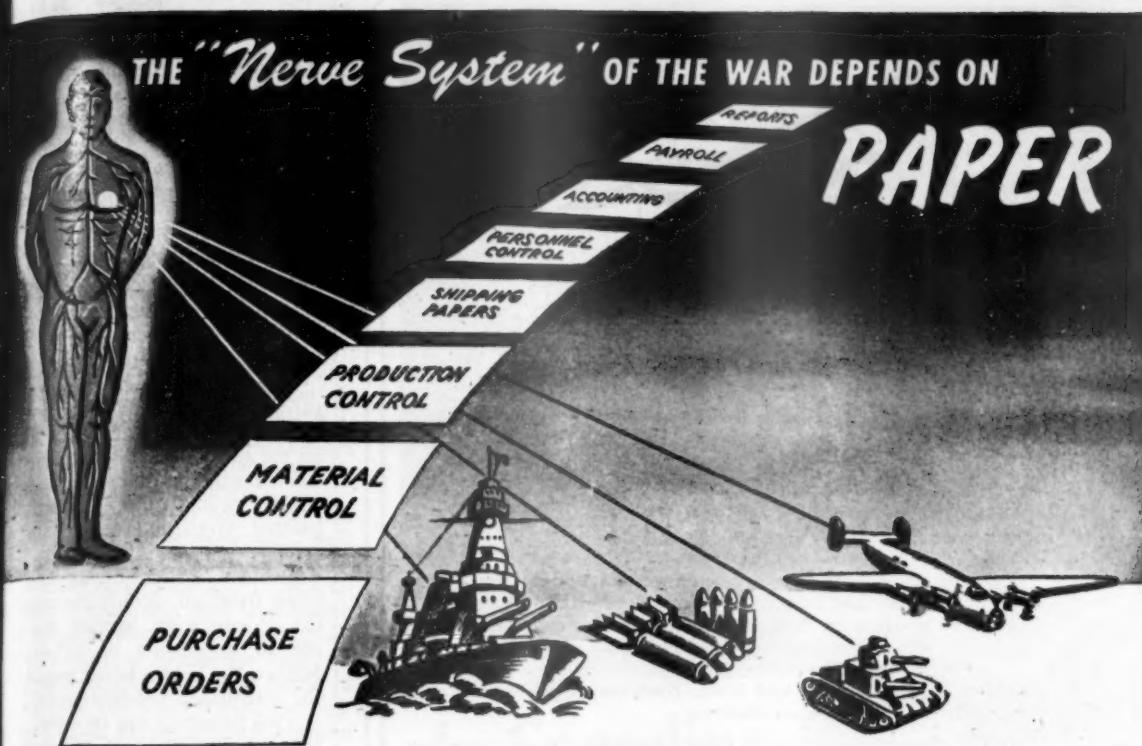
CONSTRUCTION CONTRACTS



NATIONAL INCOME



© BUSINESS WEEK



YOUR Production MAY DEPEND ON PAPER YOU SAVE

Perhaps the paper shortage seems remote from you and your business. But don't you believe it! It is a real threat to every business in America. Here's why . . .

One of the most vital uses for paper is in the "nerve system" of the war effort. Those essential written records that start . . . stop . . . control . . . every phase of War production, transportation and communications. This "nerve system" faces a serious "breakdown" . . . one that can tie-up your business and the whole war effort in delay and confusion.

IS YOUR BUSINESS SAVING PAPER BY THE POUND OR THE MILE?

What are you doing to protect the "nerve system" of your business? Are you merely saving paper by the pound . . . baling it up as wastebaskets are emptied? Or are you saving it by the mile . . . examining all your accounting and control records to eliminate waste and duplication? That's where you can save paper before it becomes waste . . . speed up production and conserve manpower at the same time. For example . . .

On 32 record systems studied recently by Standard, changes in form sizes through improved design actually saved 15 tons of paper. Combining two records for one writing saved 6.6 miles of paper on 50,000 sets. Analysis of three related records showed one copy could be eliminated . . . saving 20,000 sheets, size 8½ x 11, annually.

That's saving paper by the mile. And it's the right way . . . because it saves time, money and manpower all along the way.

WITHOUT OBLIGATION . . . Standard's systems specialists are at the service of America's War industries to help save paper by simplifying paperwork.



SEND FOR FREE CHART . . . a graphic picture of the industrial "nerve system" showing where and how to "save paper by the mile" . . . in 61 pieces.

THE STANDARD REGISTER COMPANY DAYTON 1, OHIO

Standard is the originator in continuous forms of the first and only standard platen-punched holes which are Marks of Identity of the continuous forms of The Standard Register Company—"the Forms with the Punch."



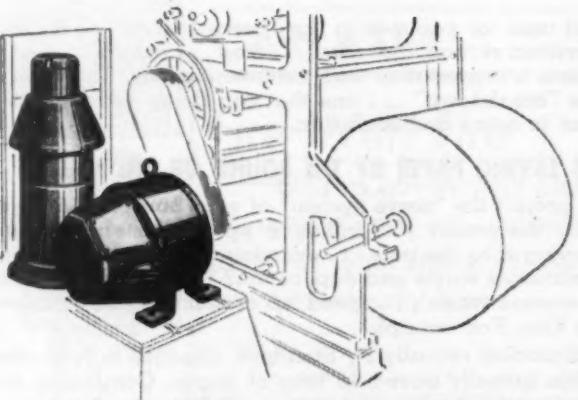
SMOOTH!



Smooth starts, smooth acceleration and deceleration, and smooth speed changes—all without clutches or brakes—are important characteristics of electric motor-drive. That they can be made to contribute substantially to improved production rates, quality and lower costs has been shown repeatedly by Reliance engineers.

Through pioneering work in many industries, Reliance men have demonstrated that motor-drive, properly applied, can be *more than power*—that, in itself, it can provide for the performance of a wide variety of operations, all with maximum simplicity, efficiency and *smoothness*.

If you would like to invite a Reliance man to come in and talk things over with your own engineers and production planners, please let us know.



Because aluminum foil tears so easily in winding under tension, the process of bringing it from a low threading speed to top operating speed furnishes a real test of smooth acceleration. This is met successfully by the Reliance V*S Adjustable-speed Drive for A-c. Circuits.

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Portland (Ore.) • St. Louis • San Francisco • Syracuse • and other principal cities.

business enterprises, such as banks, public utilities, and state controlled others.

• **Competitive Measures**—Several and subsurface efforts are being made to stem the socialist onrush, and others in prospect. The Ottawa government plans to resist the C.C.F. with advanced labor legislation and broad measures of social security.

The competing old-line political party, John Bracken's Progressive Conservatives, is developing a postwar program for decentralization of government and rapid freeing of private enterprise from wartime controls.

Proposals have been submitted by private business and individuals for a nation-wide campaign to sell the public on the advantages of free enterprise. Some business groups are campaigning against socialism through distribution of printed propaganda and radio discussions.

• **Business Policy**—Business is still far away from an openly sponsored C.C.F. campaign, figuring it would be an impression of selfish intent. Rather, the fight is being waged through the established political parties.

Two prospects are in sight: (1) if Bracken's Progressive Conservatives capture enough votes to prevent a C.C.F. majority; (2) if this target remains unattainable before the election, two old-line parties may be persuaded to join forces in a stand against C.C.F.

• **King's Program**—Mackenzie King's Liberal government revealed in its postwar labor program last week in announcing a collective bargaining and arbitration system to be set up immediately as a war measure but to be the basis of a postwar plan for workmen. It is hoped to obtain principal support for this (BW—Dec. 11 '43, p44).

Labor demands for representation on government control boards were conceded in the announcement but were expected to be added soon.

• **Threat Recognized**—Labor votes were credited with a near-win by the C.C.F. in Ontario's provincial election (BW—Aug. 14 '43, p52), and a few weeks ago the Canadian Congress of Labor adopted the plan of promoting its policies by political action through the C.C.F. But this week C. L. Cohen, dismissed member of the National War Labor Board (BW—Sep. 18 '43, p52) and counsel for the C.I.O. unions in Canada, scoffed at Ottawa's current labor program as a threat to labor's demands.

King is planning a bid for support of low-paid white-collar workers with a broad plan of social security which official experts figure will cost between two and three hundred million dollars annually after the war. Total pre-war federal expenditures ran only slightly above half a billion. The proposed plan will include stepped-up old age pensions, unemployment insurance, and

new system of health insurance and sick benefits on a national scale.

And "Baby Bonuses"—Also under study is a system of family allowances for dependent children, suggested in WLB Chairman C. P. McTague's original labor relations plan as an alternative to releasing low-level wages from ceiling controls (BW—Sep. 25 '43, p. 10). These baby bonuses, as they have been called, are being held in reserve for the social security program forecast by Prime Minister King and slated for detailed announcement at the opening of Parliament in January.

Ottawa also believes that C.C.F. has forced the government into action on business taxation. Finance Minister J. L. Ilsley is now working on the budget and is expected to include recommendations for concessions to business. With war production costs already falling and industry's need for reconversion funds mounting, some relief from the 100% excess-profits tax is anticipated. Individual income taxes may also be lowered.

To Woo the Farmers—Farmer opposition to advancing production costs on agricultural supplies was one factor in keeping rural votes away from labor-supported C.C.F. in the Ontario election and federal by-elections, and Ottawa strategists count on a farm products price and marketing program to slow up socialist gains outside the cities.

MINERS' PAY BOOSTED

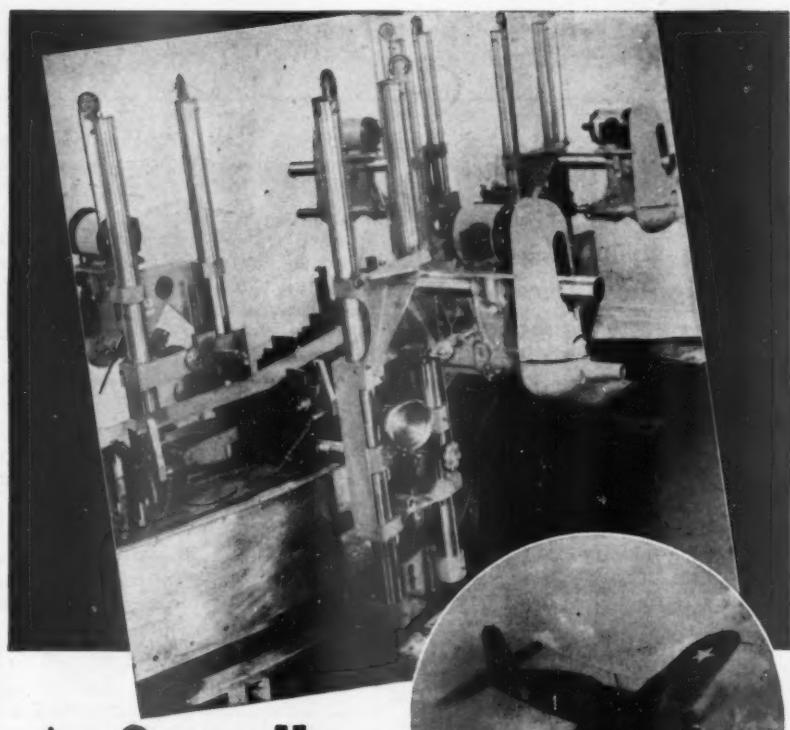
OTTAWA—In Nova Scotia's three main collieries, about 12,000 miners will get a pay boost of \$1 a day and one week's vacation with pay through a National War Labor Board award based on a corresponding concession, by a special commission, to Alberta and British Columbia miners.

The boost will add an estimated \$4,000,000 to coal production costs in Nova Scotia. This increase, if precedent in the Alberta-B. C. case is followed, will be ordered passed on to consumers at the rate of 80¢ a ton. Finance Minister J. L. Ilsley has refused to subsidize increased costs in the western field to protect price ceilings.

The Nova Scotia award, written by WLB Chairman C. P. McTague, specifies that the increase is not based on an established claim by eastern miners but on their right to equality of treatment with western miners, who participated in an unlawful strike.

NEEDED: A MILLION HOMES

Ottawa officials estimate that close to 1,000,000 homes will be needed in Canada after the war. Initiative will be mainly in the hands of private builders, but the government's postwar employment plans include outlays for replacement of slum areas in the larger cities and with modern housing.



★ Speeding Fighter - Plane Production for Uncle Sam . . with Specially Tooled DELTA Equipment

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Put together a few standard, low-cost Delta Drill Press heads and columns — add a liberal amount of American ingenuity — and you have a special machine that does a "tricky" job with a tremendous saving of time and cost over old methods.

That is the story of this special machine that drills 1700 holes in the main beam of the Vought-Sikorsky fighter plane — and it's the story

of hundreds, perhaps thousands of other operations throughout our war industries.

Stock model Deltas in units, batteries, and special setups frequently make large, costly special machines unnecessary — giving you a simple, safe, high-capacity production line that is a credit to all concerned. Investigate! Write for "Tooling Tips" and new Delta catalog.

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PRODUCTION

Speed Stressed

Exposition of Chemical Industries featured streamlined techniques and instruments used to accelerate war production.

Keynote of the 19th Exposition of Chemical Industries, at New York's Madison Square Garden last week, was faster, safer, more efficient war production in the broad and diversified field of the process industries.

• **Adaptable to Peacetime**—Overtones of the biennial affair (which is popularly miscalled the "chemical show" but is in fact devoted to the machinery, methods, processing materials, control and research instruments, and all the other technical paraphernalia required in the production and application of chemicals) were furnished by displays of new products and processes that will also be available for postwar civilian production.

Whether the processes were applicable to food processing, or rubber synthesizing, or cosmetic manufacture, or textile finishing, or any other field dependent upon chemicals, one or another of six major influences could be seen in numbers of the 300-odd exhibits: (1) new temperatures, high and low; (2) new high pressures or absences thereof; (3) increased reliance on catalytic agents; (4) improved instrumentation for re-

search and process control; (5) an accelerated trend to continuous mass production; (6) safety for production workers.

• **New Combinations**—Higher temperatures and pressures were shown teamed up with new clay-like catalytic agents in the "cat cracking" of petroleum for high-octane gasolines; lower subzero temperatures teamed up with higher vacuums in dehydrating food by sublimation (BW-Dec.11'43,p66); instruments based on electronics, Wheatstone bridges, optics, temperature, pressure, etc., control quality and speed production with safety.

Newest items on display included:

A combination infrared drier, conveyor, and feeder which will preheat or dehydrate bulk materials like synthetic plastic powders while in motion.

Electronic equipment for the continuous color control of liquids.

Wheatstone-bridge equipment for indicating and recording the pH (relative acidity or alkalinity) of liquids in a vat or flowing through a pipe.

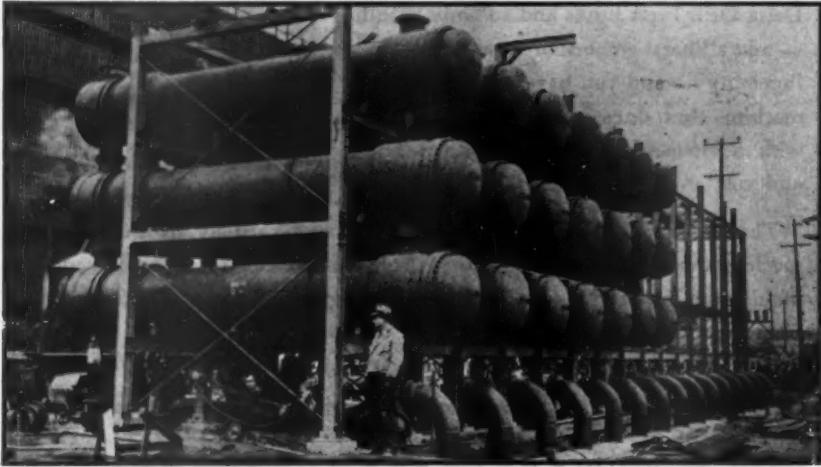
Activated alumina dryers for removing humidity from plant or product.

Waterproof closure for multiwall bags that will withstand 24 hours and more of immersion.

Automatic ampoule washers, fillers, and heat sealers that will handle the little glass containers at speeds of 1,000 an hour and more.

Glass filters made by fitting uniform glass particles together to provide microscopic openings of uniform size.

Porcelain filters that are heated to incan-



CLEARING THE AIR

With the first battery of new enclosed heat exchangers (above) in operation, butadiene is now being produced in an air of tranquility at Los Angeles. Previous units were of an uncovered type that made the atmosphere heavy

with oil fumes and the wrath of residents who couldn't stand them (BW—Nov.6'43,p37). Shut down during the installation, the Southern California Gas Co. plant this week resumed production which will mount to 35,000 long tons annually when all 45 of the exchangers are in operation.

descence when they need to be cleansed organic materials.)

Fractionating towers for distilleries are "packed" with glass fibers instead of Rasching rings.

Heat-resistant chemical stoneware made of clays that will resist the thermal shock of alternate heating and cooling.

High-silicon glass laboratory ware that is only less resistant to thermal shock than fused quartz ware.

Dry classification of bulk materials in screen sizes of $\frac{1}{16}$ in. to 250-mesh by combined electrostatic and centrifugal action.

• **Intensified**

found that known sp... and the cream to ably would yellow, on brown str... The D... unable to brown va... one speci... on a sing... white co... established... • Used o... the outco... cotton—in... the fact... on a sma... Fayettevi... have spr... and han...

Despite widespread publicity given recent developments by Russian scientists in the cultivation of cotton fiber in color (BW-Nov.6'43,p76), the Delta Experimental Station of Mississippi, which has been conducting similar research for several years, has concluded that commercial use of colored lint cotton does not seem feasible.

• **Might Eliminate Dyes**—Chief commercial advantage of natural-colored cotton would be the elimination of the dyeing process in manufacturing cloth. At least that is what the Russians hope to accomplish. They claim to have developed lints in red, green, auburn, dark brown, blue, and khaki, reportedly colorfast materials.

But the Delta station, now stressing its experiments with brown and green lints, doubts that colored cotton would be satisfactory for commercial use. Fading is a big problem, and variation in intensity in pigmentation has resulted in cloth of mottled tones.

• **Helpful in Research**—Even if colored lints never are used commercially on a large scale, they will be helpful in the experimental laboratory. Colored linters are valuable because they serve as excellent markers in inheritance studies made by cotton geneticists. Delta has found lint colors easy to classify and they are inherited simply in most cases. They seem to be associated with several commercial characteristics, such as yield, boll size, staple length, and strength of fiber.

Delta research people have found several factors which discourage the possible use of natural-colored cotton commercially. Colored cottons are characterized by low yields and low lint percentages; brown linters are short and weak, and the manufactured cloth is mottled.

• **Bright Colors Fade**—Green pigment cotton occurs only in one species, American Upland, according to the Delta station, which has a collection of 2,400

varieties and strains. Evidence indicates that all green cotton may have occurred as a mutation in a cultivated field of upland cotton.

The green pigment occurs in the cell wall and may be seen soon after the fibers begin to thicken and is quite apparent 25 days after flowering. As the fibers develop, the color is intensified until the boll opens, displaying a bright green or emerald pigmentation. However, on exposure to light, the color fades to a brownish, dirty green.

• **Intensities Vary**—The station has found that brown lint occurs in every known species of cotton that bears lint, and the intensities range from a faint cream to a dark brown. A layman probably would call some of the colors buff, yellow, or strawberry blonde, but the station insists on technically classifying the brown strains in eight "brown" shades.

The Delta research group has been unable to determine the exact origin of brown varieties; however, it does record one specific case of brown lint occurring on a single branch of a plant bearing white cotton. This brown has been established as a pure breeding form.

• **Used on Hand Looms**—Regardless of the outcome of the research with colored cotton—in Russia or the United States—the fact remains that it has been used on a small scale, at least. Women of Fayetteville, Ark., and Abbeville, La., have spun colored cotton lint into yarn and hand-loomed it into fabrics.



TENNIS WON'T SUFFER

Synthetic rubber makes a bouncing good tennis ball that outwears its pre-war prototype, according to Pennsylvania Rubber Co., Jeannette, Pa. The company reports its new "pill" has met all standards of the United States Lawn Tennis Assn. in laboratory tests (above) and actual play. Produced of synthetic not needed for the war, the ball is said to equal Hevea types in bounce, resiliency, and uniformity.



Bombsight Away!

On a mission that started many years ago

Since long before Pearl Harbor, Robbins & Myers have been making automatic pilots and electric motors for the Norden Bombsight System. And it's been—"bombsight away!"—around our shipping platform ever since. True, these words weren't even whispered . . . the wrong people might have been listening.

★ Our employees were proud of their carefully guarded secret. That's why they cheered Mr. T. H. Barth, President of Carl L. Norden, Inc., when he told them:

★ "I want to take you back several years—to a time about five years before Pearl Harbor. The Norden Company searched the country for a company which could make the high-precision kind of motors we needed for the bombsight and related equipment. And, at that time, I believe we could have had the pick of the nation. We selected Robbins & Myers and we've never regretted it . . ."

★ That was the finest compliment our organization ever received. And, when peace comes again, the benefits of many years of precision manufacturing "know-how" will be part of every product bearing our name. For having "grown up" with the Norden Bombsight, we can offer better motors, hoists, cranes, pumps, ventilating and direct-drive equipment. Meanwhile, if you have a war problem, write us. We'll do our best to help. Address: Robbins & Myers, Inc., Springfield, Ohio. In Canada: Robbins & Myers Co. of Canada, Ltd., Brantford, Ontario.

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They Work in Bed

Occupational therapy with a practical twist helps to bridge convalescence in two big naval hospitals—and aids war output.

Two big naval hospitals in the New York district are providing wounded sailors an opportunity to bridge the heavy hours of convalescence while learning a trade and lending their skill to the war effort. This is occupational therapy at work for war production.

• **Some Are Bedridden**—One hospital has six patients working in bed on critical components of war devices and nine convalescents who ride by wheel chair or hobble on foot to their work in a shop; the other hospital is said to have

eight or ten patients working similarly in bed or shop.

The project is credited to Robert F. Nelson, vice-president in charge of production at the Arma Corp., Brooklyn, which has 7,500 workers (including about 300 discharged veterans of this war) producing critical ordnance components for the Navy and can use still more production.

• **Most Need O.T.**—Nelson reasoned to himself and to Navy officials that practically every convalescent needs occupational therapy (O.T.) not only for diversion but to exercise and rehabilitate muscles that may have been injured in battle or weakened by a long tour in bed. Certain production operations, such as assembling electrical connections into cables for instruments or wrapping electrical coils, require almost the same movements and exercise the same muscles as basketry or cord knotting or some other of the generally accepted O.T. handicrafts. Why not, he asked the Navy, let convalescent sailors have a chance to do production work that would give a lift to their branch

of the service, add something to their bankrolls, and possibly lead to new skills and careers after the war?

The Navy's Bureau of Medicine & Surgery thought the plan "highly desirable," and bedside production began in earnest last month.

• **May Need Machines**—Work now includes scraping insulation off wires, assembling wires to terminal blocks, folding insulation sheets, burring small motor rotors for fire control devices, and scraping bearings into end caps, in addition to operations previously mentioned; all of them thus far can be handled with small hand tools like pliers and screwdrivers, but the project may include shop operations requiring light machinery in the future.

Rapid extension of "production O.T." is limited by two main factors: a shortage in occupational therapists (who are normally college-trained women) qualified to supervise precision production, and a procedure for paying the sailors for their output.

• **Authorizations Not Through**—There is nothing in naval regulations covering such payments, but they will probably be made through the disbursing officers at the hospitals, and their authorizations have not yet come through.

FOR LAND, SEA, AND AIR

Yesterday a laboratory curiosity, today a commonplace and vital military fuel, 100-octane (and up) gasoline is now being produced in an ever increasing flood. Newest of refineries adding to the flow is Standard Oil of New Jersey's Baltimore plant, a \$14,000,000 project which daily turns out enough of the fluid to keep 200 bombers aloft for the best part of a day. Known as the Baltimore Giant, the catalytic cracking unit has a network of 100 miles of pipes—as complex as a radio circuit (below).

Coking Dividend

Ford accumulating pile of sulphur extracted from coke oven gas; new fungicide seen as likely byproduct.

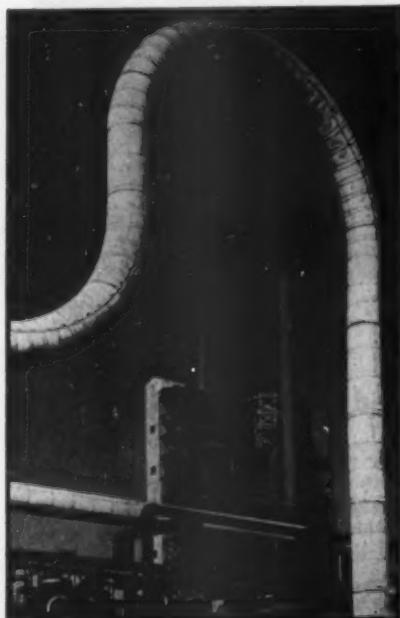
Ford Motor Co. has completed a new plant to extract sulphur impurities from its coke oven gas. Ford thereby may have put itself into a new byproduct business.

• **Six Tons A Day**—The sulphur plant frees the gas of hydrogen sulphide, reducing corrosion of equipment in heat-treat furnaces, the magnesium smelter, the armor-plate building, and other River Rouge installations. About six tons of sulphur are produced in the purifying of 54,000,000 cubic feet of gas daily.

Confronted with this pile of the yellow salts, Ford technicians figure that it can be best used as a base for fungicides and for bleaching wood pulp.

Sulphite paper mills, therefore, may be an outlet for part of the Ford sulphur. As for fungicides, Ford is doing research and development work. It has not yet been determined whether these studies will culminate in a Ford-labeled or outside-produced lime sulphur or emulsion spray material.

• **Thylox Method**—The new Ford plant, utilizing the ammonia Thylox method, was built by the Koppers Co. It develops further the technique of sulphur



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—FOR GOODNESS SAKE

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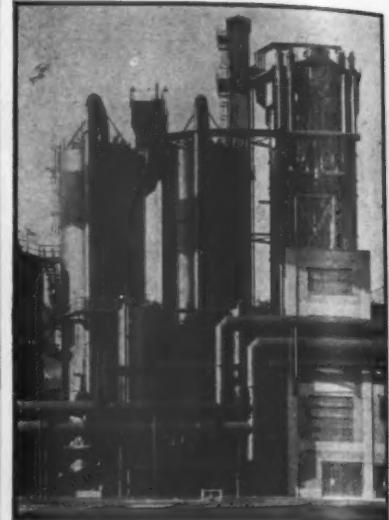
Communications is a mighty important word these days both on the home front and among the fighting yanks on all of our far-flung battle fronts. The RAULAND organization is proud of its job of backing up our war effort with the finest and most modern electronic communications equipment obtainable anywhere in the world.

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Rauland

RADIO... SOUND... COMMUNICATIONS

Rauland employees are still investing 10% of their salaries in War Bonds
The Rauland Corporation... Chicago, Illinois



Handling 54,000,000 cu.ft. of coke-oven gas daily, Ford's new purifying plant delivers six tons of byproduct sulphur. The main job of this Koppers Co. installation, however, is to reduce corrosion of equipment.

extraction by this means, worked out in five earlier installations of the sort in the U. S. and Canada. While not new, the idea is still in swaddling clothes in proportion to the total volume of coke oven gas generated through the continent.

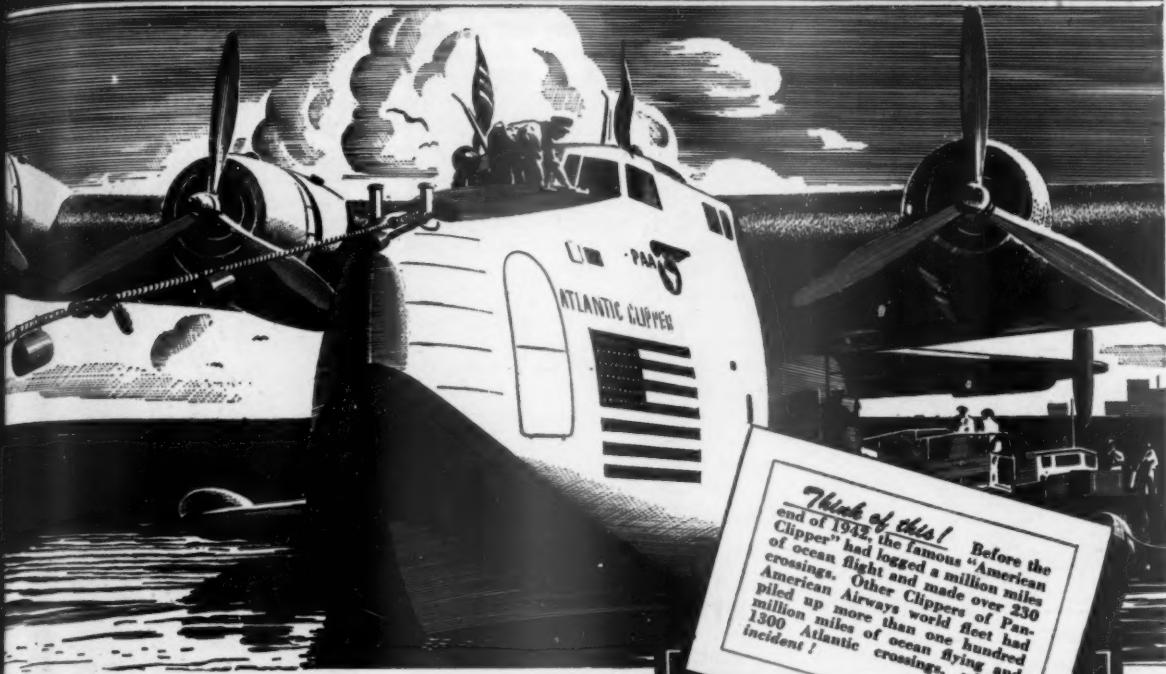
The gas is cooled and then enters absorber tanks. In these units it meets with a solution of Thylox (a proprietary chemical formulated by Koppers) and ammonia gas, the latter being added merely to preserve the alkalinity of the solution. The proprietary combines with the hydrogen sulphide in the gas, which emerges 97% free of the impurity.

• Proprietary Restored—The Thylox—150,000 gallons per hour in the Ford installation—is then restored by a series of chemical processes. Pumped into a circulating tank, it is fed into a battery of four thionizers—slender stacks 120 ft. high, into which oxygen is introduced. Oxidizing of the solution leaves a residue of sulphur in a so-called "slurry" froth which spills into skimming tanks.

The froth is agitated and then fed into a filter which leaves a residue of sulphur paste. The paste goes into a closed kettle, and heat reduces it to liquid. This liquid is poured into iron molds where it congeals into sulphur cakes for shipment.

• Corrosion Avoided—Purification of the gas is the objective of the process, of course, and the value of the recovered sulphur is comparatively minor. Much more worth while is the prolongation of life of millions of dollars of factory equipment relieved of corrosion from sulphur-laden fumes.

When Your Clipper Comes to Rest-



HydrOILics will test its tendons

Perhaps not today, but very probably tomorrow, you will board one of these ocean airliners, and settle yourself in its comfortable luxury with only keen anticipation.

Guarding your flight will be countless little-known, but rigidly-routine, precautions which take place the moment a plane comes to rest at landing field or pier . . . tests like the one shown right in which a Denison HydrOILic Unit tests a plane's "tendons"—its hydraulic lines which transmit power to ailerons, rudders, wing flaps, elevators and landing gear. Other HydrOILic units test aircraft magnetos, spark plugs, propellers, automatic slots and oil filters.

Testing is just one of the jobs HydrOILics do today. Denison equipment is applying smooth, accurately-controlled power to all sorts of mechanical movement . . . serving American war industries in hundreds of ways. If you have a present-day, or postwar, problem involving rotary or straightline power, consider oil-hydraulic power! Consult Denison engineers. They may already have your answer! The DENISON Engineering Co., 1193 Dublin Rd., Columbus 16, Ohio.

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The Art of Calculating as advanced by Marchant

Smoothly Flowing Mechanism was first introduced by Marchant over ten years ago.

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MARCHANT SMOOTHLY FLOWING MECHANISM is a system of continuously flowing dials...no start and stop, no shock or jar in operation.

Prove this by holding your finger on the Marchant as a figure develops in its dial. You feel no thumping...because intermittent mechanism has been eliminated. Instead you sense only the rhythmical flow of the dials, quietly revolving with uninterrupted motion...Marchant's secret of long life and smooth performance.

Smoothly Flowing Mechanism is one of 20 Points of Superiority by which Marchant brings speed, accuracy and good nature to all calculator work.

MARCHANT SILENT-SPEED ELECTRIC CALCULATORS

THIRTY-THIRD YEAR

MARCHANT CALCULATING MACHINE COMPANY
Home Office: Oakland 6, California, U.S.A.
SALES AGENCIES AND MANUFACTURER'S SERVICE STATIONS GIVE SERVICE EVERYWHERE

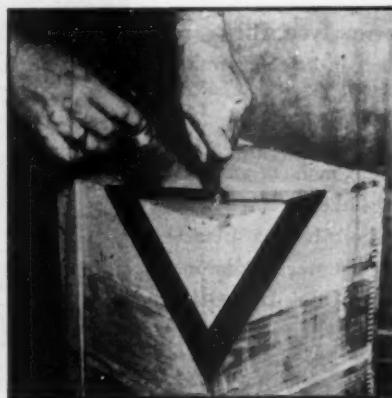
Moldable Nylon

Newest form of nylon, the synthetic which is associated in most minds with textile yarns for hosiery and parachutes, is a high-temperature, thermoplastic molding powder designated as "Nylon FM-1" by its formulator, E. I. du Pont de Nemours & Co., Wilmington 98, Del. Used now only for military purposes, the material is going into injection-molded housings for tiny aircraft switches and spools for coils used for activating certain aircraft instruments.

In the postwar period, it is expected to become a basic material for slide fasteners that will "withstand the most rigorous laundering conditions, including cleaning solvents and ironing temperatures. . . . Its ability to stand up under load at temperatures up to approximately 275°F greatly extends the scope of molded thermoplastics."

Corner Stencil

Various branches of the armed forces, such as the Quartermasters Corps, the Signal Corps, the Engineers, and so on, require that their own designated colors of stencil ink be applied by their contractors to two diagonally opposite corners of each box or case shipped for their use. Idea is that packages so marked



can be spotted quickly in a joint consignment or mixed warehouse stock.

To facilitate the application of such markings, the H. G. Hamline Co., 333 Race St., Philadelphia 6, has devised the new Hamline Box Corner Stencil. It is made of 16-gage steel, has a handle, weighs only 1½ lb. Markings made with its assistance are uniform in shape and take only a fraction of the time required for freehand application.

Torque Wrenches

Two new hand tools are being introduced by Joyce & Associates, 819 Washington Bldg., Los Angeles 13: the

Jomi Torque Wrench and the Jomi Tension Wrench. The first is equipped with a micrometer-type adjustment on its handle with calibrations in increments to permit a mechanic to set his tool to the requirements of a particular tightening job. The second, which is designed for less experienced workers on a production line, is adjusted to a given torque in the tool crib and cannot be changed on the job.

Both wrenches snap open when the proper torque is attained, thus giving immediate and unmistakable notice to cease tightening. When loads are released the wrenches snap back to normal positions for ensuing jobs.

Water Tester

The new Water Test Set, developed by W. H. & L. D. Betz, Gillingham



Worth Sts., Frankford, Philadelphia, said to include "all the necessary apparatus and chemicals for the determination of hardness, alkalinity, chloride, sulphite, and phosphate." Although it is offered primarily for the analysis and control of boiler water, it will probably achieve a place outside the boiler room in any industry where the purity of process or product water is important.

All chemicals and apparatus are housed securely and ready for instant use in a special dustproof cabinet which is designed to be set on a table or hung on a wall. An inbuilt fluorescent light furnishes illumination for tests, and part of the cabinet door swings down to form an acid-resistant work place.

Tractor Crane

Large pneumatic rear tires on the new Drott Go-Devil Tractor Crane provide traction for carrying heavy loads through "soft going" and up steep inclines, outdoors and in. Front wheels have extra-size solid tires. Steering is power-hydraulic for ease in handling. Power

source is a 4-cyl., 16-hp. gasoline engine, powerful enough to provide traveling speeds up to 7 m.p.h. under load and some lifting capacities up to 2,000 lb.

The hydraulically operated boom, which swings through a full 360 deg., has a horizontal reach of 90 in. and a vertical lift of 14 ft., 2 in. Outriggers prevent tipping under exceptionally heavy loads. In offering the outfit, executives of the Hi-Way Service Corp., 41 W. Wisconsin Ave., Milwaukee



believe it will "take over most types of lifting, loading, transporting, and unloading in the shop or in the yard," and suggest that it will be "ideal for loading and unloading boxcars, gondolas, transport trucks, and airplanes."

New Products Briefs

Also reported this week, not only for their interest to certain designated business fields, but also for their possible part in the postwar planning of more or less allied fields and business in general, are the following:

Metalworking — The Sunstrand Machine Tool Co., Rockford, Ill., is announcing electrically operated new Automatic Index Bases for its hydraulic Spidimils and its No. 2 Electromil. They can be operated in either vertical or horizontal position, promise to cut costs of cutting splines, multiple keyways, slots, and such by turning the work automatically from position to position and stopping at the completion of the entire job.

Flextile-Carpet mills have made many attempts through the years to substitute paper yarns for the jute yarns normally used for backing and "filling" their pile fabrics. Now that imported jute is no longer available for carpets, certain mills are beginning to work successfully with "Textilene," a new twisted fiber yarn developed by E. W. Twitchell, Inc., Third & Somerset Sts., Philadelphia 33. It is based on tough kraft paper, treated with various emulsions and conditioned to give it moisture resistance and the right weaving qualities. Backs of carpets and rugs woven from it return to their original firm body after shampooing.



WHEN sewing heavy fabrics and treated materials, industrial sewing machine needles often become so hot that they lose their temper and break easily in addition to causing excessive thread breakage. This means serious time and production losses in addition to waste of thread and critical needle steel. To help overcome this situation Union Special engineers have developed new Needle Coolers to dissipate heat generated in the needles. Results in some plants have been almost miraculous.

The ability to step in and solve special problems of the needle trades has long been an important function of Union Special . . . ever since Union Special engineers first conceived the idea of building special sewing machines to do specific jobs.

If you use sewing machines anywhere in your production, it will pay you to talk to a Union Special representative. Write today.

**Union Special
Machine Company**

408 North Franklin Street, Chicago 10, Illinois

WAR BUSINESS CHECKLIST

A digest of new federal rules and regulations affecting priorities and allocations, price control, and transportation.

Lumber

To offset recent increases in production costs, increases averaging 16% in ceiling prices for standard grades of hardwood lumber of the north-central hardwood region have been announced. This lumber is used extensively in the manufacture of gunstocks, cargo truck bodies, wooden ships, boxes and crates, blocking, factory construction, and war housing. (Amendment 11, Regulation 155.)

Producers of hardwood small dimension may pass on to buyers the increases in labor and materials costs of the last few months, according to a new regulation that provides a formula for fixing producers' f.o.b. prices and prices for sellers other than manufacturers. (Regulation 501.)

Southern yellow pine and certain hardwoods (including oak, ash, hickory, yellow birch, hard maple, rock elm, and beech) will be placed under strict allocation control beginning Jan. 1, 1944. Shingles, lath, and railroad crossties of all species named are exempt. (Conservation Order M-361; Conservation Order M-364.)

Steel Nails

Manufacturers of asphalt shingles, asphalt roll roofing, asphalt siding, asbestos siding, and cork board may buy steel nails on maintenance and repair ratings when the nails are to be delivered with these products for use in applying them, on orders calling for delivery to the manufacturers after Dec. 31. The MRO symbol cannot be used to buy more steel nails than are needed for this purpose, and the amount of nails a manufacturer may deliver is limited to the amount delivered with the same unit of these materials in 1943. (Direction 14, CMP Regulation 5.)

Industrial Paints

Manufacturers' sales of industrial paints that have been put on the market since March, 1942, are exempt from price control provided the total sale of any such paint is not more than \$1,000. When sales reach this point, the paint will be priced under GMMPR. Industrial paint, under the order, means protective coatings for industrial and military equipment and for articles manufactured primarily for resale. (Amendment 37, Revised Supplementary Regulation 1 to General Maximum Price Regulation.)

Coal

Bituminous coal producers with high-cost, low-margin mines can get quick adjustments on ceiling prices under an OPA ruling designed to keep these mines producing. They must file application for an adjustment and also a calculation of increases; thereafter, upon telegraphing notice of the proposed ceiling to OPA's Solid Fuels Price Branch, the new ceilings may be temporarily put into effect. To qualify, the mine must be

operating on a six-day work-week basis, must not have been granted any price adjustment after Nov. 30, and must be subject to increased wages resulting from the agreement made between Secretary of the Interior Harold L. Ickes and the United Mine Workers of America on Nov. 3, or from a similar agreement. (Amendment 74, Regulation 120.)

Retail coal dealers whose maximum prices have been set by individual action of regional offices (dealers operating under Rule 4 of the coal dealers regulation) may add to their ceilings the recent increases in coal ceilings at the mine. (Amendment 15, Revised Regulation 122.)

Sirups and Molasses

A ruling affecting packers and producers of sirups and molasses increases maximum prices of country and commercial cane syrup—at retail, by 10¢ per No. 10 can of country cane syrup (net content slightly less than 1 gal.) and by 4¢ to 5¢ for a similar can of commercial cane syrup; at producers' levels, by 8¢ per gal. in barrels for country cane syrup (formerly known as Georgia cane syrup) and by 4¢ per gal. in tank-car sales for commercial (formerly known as Louisi-

ana) cane syrup. Increases in prices of packaged sirups reflect increases in price for bulk. To prevent millers from reducing capacity in order to get higher prices, sugar mills are to be classified on the basis of the normal 1941 practices, rather than on number of rollers and grinding capacity.

Two types of high-grade molasses are affected by this rule. The price for "fine molasses" has been rolled back 2¢ per gal. in tank cars from the freeze levels. "Second molasses" price has been increased 2¢ per gal. in tank cars. These changes may be passed on to the consumer. (Revised Regulation 291.)

Infants' and Children's Hose

To step up production of infants' and children's hose, manufacturers are required to produce each week, for civilian use, certain specified types of such hose in amounts equal, in relation to their total civilian production, to the amounts produced in 1943 or this year, whichever is greater. (Paragraph c, Order M-328.)

Packed Foods

Formulas are provided for determining processors' maximum prices for certain canned specialty foods—sweet potato, brined and maraschino cherries, canned mushrooms, processed dried prunes and prune products—under an amended OPA ruling. Ceilings on these items are raised in view of increased costs, especially for raw materials. Because of the greater availability of tin for canning sweet potatoes, that veg-



LEND-LEASE PACKAGING

Three years of government-industry research lie behind the standardized packaging now used by American steel mills in world-wide shipment of finished products. Such packing must protect mirror-like surfaces from rust and scratches in weather and temperature extremes. Typical of the standards, detailed in a 180-page manual by American Iron & Steel Institute, are those for exporting flat sheets and rolled strip. Sheets go in boxes of wood and heavy paper (right), reinforced for rough riding at sea or on



camel back. Coils of strip, measuring 28x20x10 in. and weighing 1,120 lb., are first wrapped in special paper (left above), then in thin steel foil (right).





American Gas Machine Co.
Albert Lea, Minn.
Biegelow-Sanford Carpet Co., Inc.
Thompsonville, Conn.
Charles D. Briddell, Inc.
Crisfield, Md.
Cribben & Sexton Co.
Chicago, Ill.
E. I. du Pont de Nemours & Co., Inc.
Newport, Ind.

The General Fireproofing Co.
Youngstown, Ohio
General Iron Works Co.
Denver, Colo.
General Motors Corp.
(Two divisions)
International Silver Co.
Meriden, Conn.
Ken-Rad Tube & Lamp, Corp.
Owensboro, Ky.
Lattimer-Stevens Co.
Columbus, Ohio

(Names of winners of the Army-Navy and Maritime Commission awards for excellence in production announced prior to this new list will be found in previous issues of Business Week.)

table has been placed under a formula to replace the freeze ceilings of March, 1942. Home canners who sell annually less than 1,500 qt. of packed fruits and vegetables (or the equivalent in other container sizes) are exempt from price control. (Amendment 19, Regulation 306.)

Orange, Grapefruit Containers

Any shipper of oranges or grapefruit who doesn't use his full quota of wooden shipping containers may transfer the unused part to another shipper in the same area. (Order L-232-a, as amended.)

Furniture Dealers

By an extension of the WPB declaration of policy, furniture retailers have agreed to place voluntary restrictions on sales promotions. Arthur D. Whiteside, WPB's vice-chairman for civilian requirements, has announced. Since July 15, the declaration of policy has applied to textiles and textile products.

"Petroleum Fraction" Antifreeze

The regulation covering antifreeze has been broadened to permit manufacturers of "petroleum fraction" antifreeze products to apply for authorized maximum prices, at all levels, in line with those of other antifreeze preparations. Production of petroleum fraction antifreeze, which had been halted by WPB, was recently resumed because of the shortage of permanent type preparations. (Amendment 7, Regulation 170.)

Common Carriers

Railroads and other line-haul carriers (such as steamship lines or motor transporters) may now withdraw their agreements to absorb, without reservation, increased pickup and delivery costs. Pickup and delivery services are generally performed by local truck firms or individuals under contract with the line-haul carriers, and consist of local transportation of shipments to and from, or between, terminals of the line-haul carriers. The new option is allowed provided that the line-haul carrier certifies

that it cannot secure satisfactory delivery service from the local carrier at lower rates and a discontinuance of the service would increase transportation costs to shippers and consignees, and provided that it agrees to pay and absorb the increase in rates. The one right reserved is that the line-haul carrier may now present for consideration by any regulatory body increased costs resulting from new pickup and delivery rates, together with any other cost increases, in any future application for general rate increases. This action brings line-haul carriers who, before Nov. 4, entered agreements to absorb pickup and delivery costs without reservation on the same footing as those carriers who entered the agreements after that date and who have been allowed the reservation in agreeing to absorb costs. (Amendment 61, Revised Supplementary Regulation 14.)

Oil Tank Cars

To step up the movement of oil to both the East and the West Coasts, the Office of Defense Transportation has authorized shippers of petroleum and petroleum products to remove tank cars from the East Coast movement and use them for shipments to the West Coast. (General Assignment Order ODT 7, Revised-2.)

Imported Swiss Watches

Drastic reductions have been made in the average price ceilings of three types of inexpensive imported Swiss watches, demand for which has risen with the shortage of watches of American make. Types affected are pin-lever, cylinder, and Roskopf. Retail ceilings for these, in base metal cases, range from \$8.50 to \$18.50. Importers must tag each watch with a description and retail ceiling price, exclusive of tax; stock in retail stores must be similarly tagged. (Regulation 499.)

Tires and Tubes

Canadians who have allowed U. S. motorists driving in Canada to obtain tires and tubes are granted reciprocal treatment by an amendment that permits Canadian residents driving their automobiles or motorcycles

Logansport Machine, Inc.
Logansport, Ind.

Glenn L. Martin-Nebraska Co.
Omaha, Neb.

Louis Marx & Co.
Girard, Pa.

The Ohio Brass Co.
Mansfield, Ohio

Outboard, Marine & Mfg. Co.,
Evinrude Motors
Milwaukee, Wis.

Revere Copper & Brass, Inc.
Rome, N. Y.

Sylvania Electric Products,
Inc.
Williamsport, Pa.

Utah Radio Products Co.
Chicago, Ill.

Wendt-Sonis Co.
Hannibal, Mo.

MUSIC MAKES TANKS



MAKES TANKS

MANUFACTURERS of tanks and planes and ordnance no longer question the power of music to step up production.

That is why "Swing Shift Frolics"—a musical variety program heard over The Blue Network Friday, 10:30 to 11:00 PM EWT—is today being piped into more than 350 of the largest war plants on the eastern seaboard.

"Swing Shift Frolics"

is a particularly good "morale-booster" because it is a half-hour program featuring singing and other entertainment by war workers and planned to appeal directly to war worker listeners. Whether or not you have a production problem, we suggest that you consider piping "Swing Shift Frolics" into your plant—not only as a means to combat fatigue and the boredom of repetitious operation but as a considered part of your employee relations.

For further details please get in touch with The Blue Network station in your city or in the city located nearest to your plant.

The Blue Network

NEW YORK • CHICAGO • DETROIT
HOLLYWOOD • SAN FRANCISCO

THIS FA LIGHTING and APPLIANCE PANELBOARD IS Safety Type UNDER ALL OPERATING CONDITIONS

Each section is of Bakelite, molded in one piece. There are no removable covers to fall off or become loosened by tampering . . . all parts, including the switches, are applied from the rear . . . Each section contains four #30 ampere, single pole, heavy duty tumbler switches, with plug fuse connections . . . Branch Circuit tumbler switches are rated 30 amperes, 250 volts DC, and are of the quick-make, quick-break type, with double-break contacts . . . For surface or flush mounting, with from 4 to 42 branches; with main

lugs only, or with safety type main fuse disconnect, or # Shutbrak safety type main switch. Approved by Underwriters' Laboratories, Inc.

Write for Bulletin 67 — It contains complete information . . . Frank Adam Electric Company, Box 357, St. Louis, Mo.



FRANK ADAM ELECTRIC CO., ST. LOUIS, MO. U.S.A.



Students get the feel of flying in plywood-built Link Trainers

One of the most interesting devices used in student pilot training by all of the United Nations is the Link Trainer. Because it simulates actual flying conditions, students learn how to handle a plane in various types of weather before ever going aloft. The Link Trainer contains a considerable amount of Douglas Fir Plywood—a material the student will also find in Flying Fortresses and other airplanes when he gets his wings. He'll find this Miracle Wood doing scores of other war jobs, too—and after Victory will find it again in civilian life being put to more uses than ever before.

If you would like to see actual photographs of many of the ways Douglas Fir Plywood is serving our Armed Forces, write for our free War Use Folder. Douglas Fir Plywood Association, Tacoma Building, Tacoma, Washington.

STRONGER PER POUND THAN STEEL!

DOUGLAS FIR PLYWOOD

Real Lumber
MADE LARGER, LIGHTER,
SPLIT-PROOF,
STRONGER

below the border to buy used and reclaimed tires and new tubes in this country. Canadians must, however, be driving on business or for other essential purposes. (Amendment 62, Ration Order 1A.)

Paper

Tablets, pads, and related products made from newsprint paper may be reduced by from five to ten sheets, to permit continued production and sale of these items at prevailing ceilings in the face of two \$4 per ton increases in newsprint paper during 1943. (Amendment 9, Regulation 225.)

Relaxation of Priorities

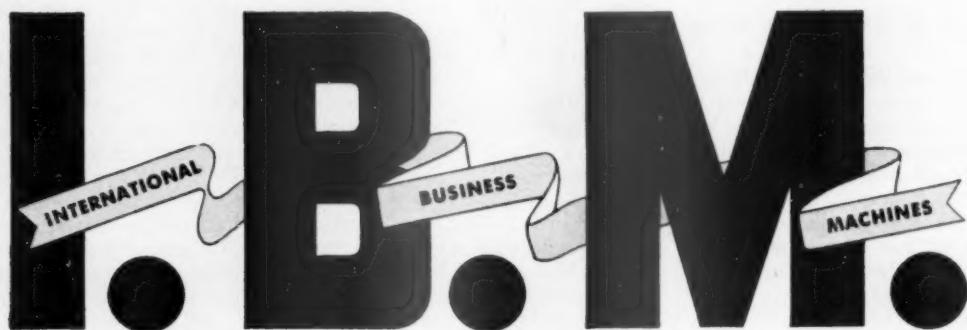
Approximately 30,000 new all-steel freight cars are scheduled for production in 1944, WPB's Transportation Equipment Division announces. . . . Carbon steel may be used in inner liners for some new furnaces, and cast iron is freed for use in specified furnace parts, by an amendment to WPB's Order L-22. . . . After Jan. 1, antimony will be released from allocation control by General Preference Order M-112, as amended. . . . Aluminum may be used in the manufacture of buses and the fabrication of collapsible tubes (Supplementary Order M-1-i, as amended). . . . Manufacturers of mechanical water coolers may produce these units for industrial uses, under WPB Order L-38, as amended, which simplifies the procurement of industrial and commercial refrigerating and air-conditioning machinery and equipment. . . . More chromium will go into making stainless steel as a result of WPB's Supplementary Order M-21-a, Directive 3. . . . Order L-181 authorizes the use of suspender buttons on men's work pants. . . . Manufacturers may build any sugar processing machinery, on properly rated orders, under Schedule V of Order L-292. . . . Better position in Brazilian oiticica nut oil permits its use again in wrinkle finishes and waterproof adhesives, and increases amounts available for other specified uses (WPB Orders M-139, M-246, M-254).

Other Price Actions

OPA Amendment 8, Regulation 305, permits the cost of enriching to be added to established maximum price of degeminated corn meal and corn grits. . . . Ceilings on sales of hinges and butt hinges by manufacturers and resales by jobbers are lifted 5% by OPA's Amendment 3, Regulation 413. . . . A number of types of canvas rubber-soled footwear are given maximum prices at the manufacturers' levels by Amendment 6, OPA Regulation 132. . . . Specific dollars-per-cwt. wholesale ceiling prices for several sausage items not previously under price control are established, at about the level of going prices, by OPA's Amendment 10, Regulation 389. . . . The average price for fresh oranges—the basis for determining ceilings for orange products processed in Florida and Texas—is fixed at \$52.50 per ton f.o.b. packing house or roadside bases. . . . Ceilings for pyrophyllite are raised 40¢ per ton by Amendment 20 to Order A-1 under Regulation 188. . . . All alfalfa seeds are brought under the control of MPR 471. . . . Processors' maximum prices for fresh oyster shells, used as grit in feeding poultry, are raised \$2.00 per ton for carload lot sales, by Amendment 1, Regulation 486.



**Far sighted manufacturers are selecting
their post war Pacific Coast Factory Sites NOW!**



SELECTS SANTA CLARA COUNTY FOR ITS WEST COAST PLANT



INTERESTED IN POWER?

Santa Clara County manufacturers tap the greatest power pool in the world.



INTERESTED IN NATURAL GAS?

Santa Clara County has a tremendous supply—at low rates.



INTERESTED IN TAXES?

Santa Clara County taxes are lower than any comparable industrial area on the Pacific Coast.



INTERESTED IN LABOR?

Santa Clara County has a plentiful supply with a record of complete cooperation.



INTERESTED IN LAND?

Santa Clara County offers low cost land on railroad lines and highways.



INTERESTED IN LIVEABILITY?

Santa Clara County has the climate and facilities that make living worth while.

The world's largest manufacturer of electrical accounting machines, International Business Machines, has located its first West Coast plant in San Jose, Santa Clara County, California.

I.B.M. has always enjoyed a large West Coast business. But after the war, according to Thomas J. Watson, I.B.M. President—"the Pacific Coast will be a far greater industrial district than ever before... and our new San Jose plant will cover this developing area."

Cover it from San Jose? Definitely!

Santa Clara County is the population center of the Pacific Coast. That means cheaper distribution.

Santa Clara County has access to the greatest power pool in the entire world. That means abundant, cheap electricity. Santa Clara County is a vast reservoir of water. A county of mild, even climate that encourages work and reduces plant heating problems to a minimum.

Friendly cooperative labor is here. Transportation by train, truck or plane. Low taxes. Abundant, inexpensive land. Need we go on? The next move is yours. Write for all the facts today!

WRITE FOR "POST WAR PACIFIC COAST"

POST WAR PACIFIC COAST a factual illustrated book on the opportunities offered by Santa Clara County is yours for the asking. No cost—no obligation.

**DEPT. W SAN JOSE CHAMBER OF COMMERCE
SAN JOSE, 23, CALIFORNIA**



**SANTA CLARA
COUNTY** *California*

The population center of the Pacific Coast



MARKETING

Chains Eye Future

Big distributors, with an eye on production wizardry of war plants, are shaping a comeback at expense of the corner store.

The chains and the mail order houses may have lost ground during the war to the little corner store (page 90), but they are counting on a comeback after the war that will make them bigger and more powerful than ever. As far as they are concerned, it's virtually in the bag for the big distributors right now.

• **Capacity to Produce**—Fundamentally, the logic of their expectation is simple. It rests on one incontrovertible fact—America's vastly increased capacity to produce. Right now, that huge new capacity is accounting for planes and guns and shells, all the gear of war. After the war it will be available for vacuum cleaners, baby buggies, radios, and an infinite variety of consumer hard lines.

Automatically, that's going to put distributors into a buyers' market. But, better than that, the big distributors figure that it is going to be a market made very much to the measure of their buying abilities. The big producers may have everything they need as far as materials, trained labor, engineering ingenuity, adequate financing, and plant are concerned, but they won't have customers. And customers are what the big distributors can deliver—in bulk.

• **They Have the Edge**—Given time, of course, the big manufacturers can develop their own distribution, but the mass marketers will at least have the drop on the independents, for when the lid comes off and competition between thousands of new and old consumer products is unleashed, the speed with which a manufacturer can preempt retailing facilities and gain consumer acceptance will be an important measure of his success. That's why the manufacturers, generally lacking adequate sales forces to enlist the army of small wholesalers and retailers, look to the big distributors with their multiple outlets and their merchandising know-how.

Competition for chain and mail order favor isn't a thing of the future. It's already here. It's here wherever a potential seller can meet a possible buyer in office, bar, or club. And to the chairman of a manufacturing company's postwar planning committee, the field of possible buyers isn't limited by present retailing operations. The diversification program which the drug chains pioneered so successfully a decade ago leads

the ambitious salesman to hope that they or the food chains or the apparel distributors can be induced to handle household appliances and a wide variety of other consumer hard lines.

• **Playing Hard to Get**—The big distributors are listening to these propositions—after all, they are in competition too, and no one of them wants to miss a bet—but, by and large, they are playing hard to get and for a variety of reasons. In the first place, the more offers there are, the lower the prices are likely to be.

Furthermore, they don't want to buy a pig-in-a-poke, and most potential sellers have little more than capacity, willingness, and a shadowy idea of a product to sell; chain store buyers are notoriously hard-headed about grades and qualities and performance tests.

Again, the big distributors have a tradition of sticking with their old suppliers; it's a policy that pays not only in getting goods when other buyers can't during a period of merchandise shortage, such as the present, but also in securing valuable political support when state and federal legislative bodies put the chains on the spot.

• **Studying War Plants**—Finally, well aware of the natural affinity between

their gigantic distribution setups and the mass production that will match it, the chains are doing their own looking around, surveying present war contractors.

Almost as common as the rumors linking some chain or mail order house with a big war producer—the Southern California aircraft plants are an especially favorite—are reports of an ambitious expansion program contemplated by some big distributor. And, indeed, many such plans, born of a confidence in the prominent position of the mass distributor in the postwar market, have already been secretly blueprinted.

• **Macy to Expand**—Most dramatic "revelation" of this kind was that peddled last week by Women's Wear Daily. Describing a major expansion program for Manhattan's R. H. Macy & Co., the world's largest department store, Women's Wear announced that Macy plans hundreds of postwar outlets throughout the country.

While Macy officials this week described the report as "moonshine," they admitted that their postwar program does envision moderate expansion which well may include additional stores, but not on the scale indicated by Women's Wear. It is not unlikely that Macy will also try again to promote its private brand lines which were offered to other department stores originally five years ago (BW-Jun.11'38,p27), an expansion program that was nipped in the bud by

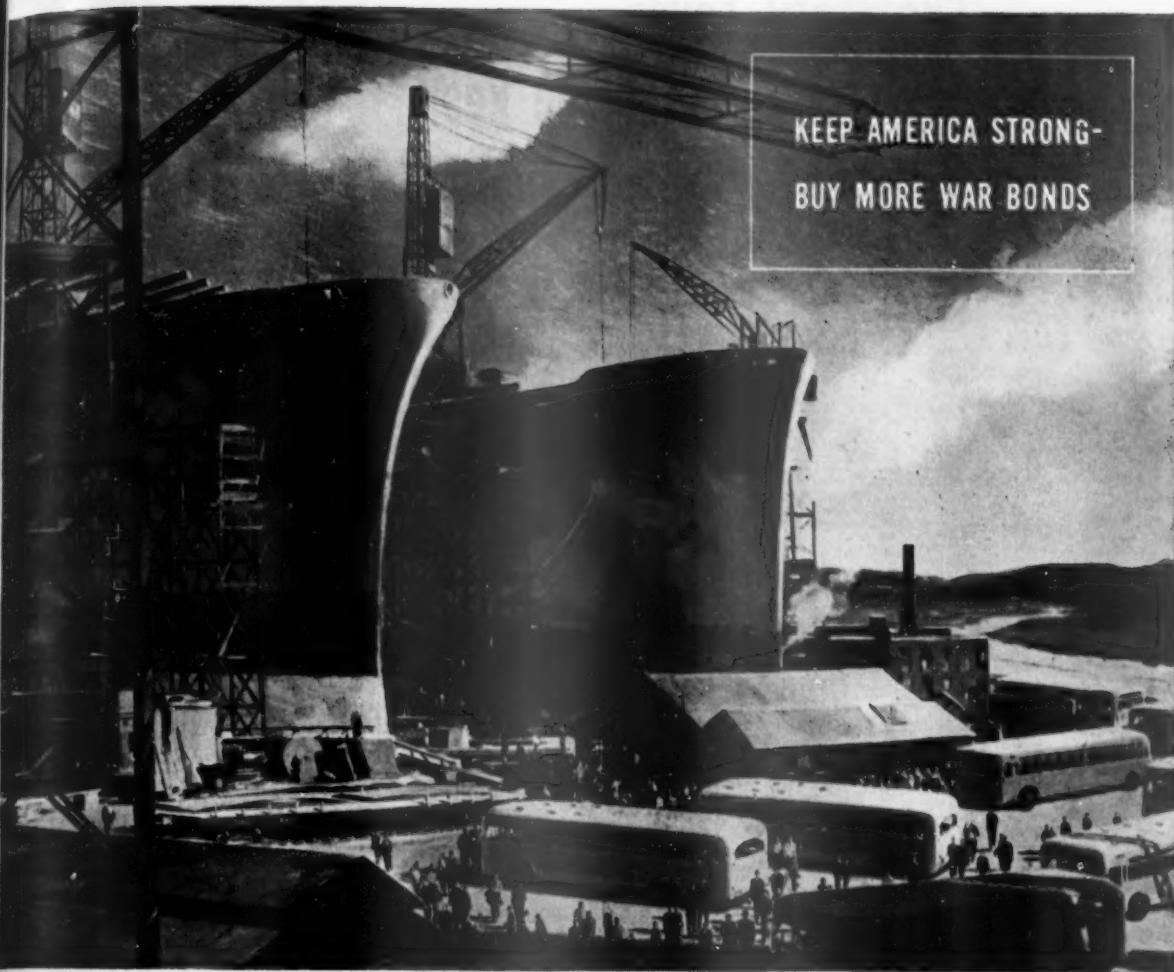


SEARCH FOR SPIRITS

Repeal was ten years old a few weeks ago; the anniversary found the liquor industry too busy worrying about the return of prohibition to bake any cakes. Just last week Sen. Frederick Van Nuys (left), chairman of the Senate Judiciary Committee, appointed himself chairman of the liquor short-

age investigating subcommittee. Aided by Sen. Homer Ferguson (right), Van Nuys delved into a morass of facts, fiction, charges, and countercharges collected by Oliver B. Lerch, one-time employee of the Distilled Spirits Institute, now the committee's investigator. Van Nuys announced his committee would pursue its search for more whisky relentlessly.

KEEP AMERICA STRONG-
BUY MORE WAR BONDS



PEACETIME TRANSPORTATION ON A WAR JOB

NEARLY every Diesel engine General Motors makes now goes to work for Uncle Sam.

Most of them go right into the fighting—into tanks, trucks and tractors, into combat ships, patrol boats and landing barges.

But here are GM Diesels doing a big wartime job in a home front application.

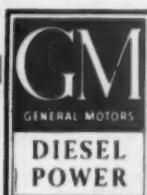
It's a Navy "task force" of some 250 General Motors Diesel coaches that carry thousands of Mare Island

Navy Yard workers in California to and from the job every day over a fifty-mile radius.

These are doing the same day-in-day-out dependable job which thousands of GM Diesel-powered coaches were doing before.

And they point to the days ahead when General Motors can devote its expanded plants to providing bus operators with engines and parts improved and refined through their work at war.

One important peacetime use of Diesels got a good start well before the war—low-cost transportation. Long engine-life, long periods between overhauls, long mileage on inexpensive fuel, and steady stick-to-it operation add up to new economies in travel.



ENGINES, 15 to 250 H.P., DETROIT DIESEL ENGINE DIVISION, Detroit, Mich.

ENGINES, 150 to 2000 H.P., CLEVELAND DIESEL ENGINE DIVISION, Cleveland, Ohio

LOCOMOTIVES, ELECTRO-MOTIVE DIVISION, La Grange, Ill.

Secretary says: SoundScriber helps me keep up with boss 1,000 miles away!



"**My boss** used to snow me under with dictation whenever he came home from a trip. But now that he takes along a portable SoundScriber to record his letters, memos, conferences, I keep right up with him. That's because he mails the recorded discs back to me each day . . . just like letters."

"**Those** that do not require immediate typing, I file for permanent reference. From those I type, I get every word as clearly as though he were here talking to me. When the boss returns, the work is right up to date."

No wonder busy executives in hundreds of America's leading concerns use SoundScriber, both at home and on the road. It's the modern, electronic method of business recording.

Wire or write for SoundScriber literature. If your work is war essential, you can get immediate delivery. The SoundScriber Corporation, Dept. B-4, New Haven, 11, Conn.

Copyright 1943, The SoundScriber Corp.

SOUND IN AN ENVELOPE
best describes a 7" featherlight SoundScriber disc. Can be mailed or filed like a letter. Any fraction of recorded material is quickly and easily found on a SoundScriber disc.

SOUNDScriber
TRADE MARK
ELECTRONIC BUSINESS RECORDING

the merchandise shortages resulting from the war.

Sears, Roebuck & Co. is reported to have elaborate plans for postwar expansion of both mail order and retail store divisions. And while Sears, like Macy, has produced no blueprint, many a producer is eyeing the potential market with determination.

- **Penney Besieged**—One of the most persistently besieged by war industry's postwar planners is the J. C. Penney Co., which, with its 1,611 stores in 48 states, looks to many manufacturers like the ideal hard lines distributor. The fact that Penney has never carried hard lines makes the market the more attractive, for no allegiance to previous suppliers can stand in the way of the new manufacturers' expansion.

Penney, however, has denied officially a widespread rumor that it planned to distribute after the war a complete line of hard goods to be manufactured by the Consolidated Aircraft Co.

- **Seeking Personnel**—Consolidated, incidentally, is apparently proceeding with postwar manufacturing plans for a complete line of household appliances—whether or not it has distributors lined up. Recently Consolidated advertised for refrigerator engineers in Detroit papers where the ads were inevitably spotted by Kelvinator engineers and ex-engineers.

War industries are not shooting for the household appliance market en masse. Several of them have the automobile field in mind, with both Lockheed and Boeing reputed to have a car blueprinted already.

- **Propositions Invited**—One distributor who has taken the initiative is George Brauer of Los Angeles, whose United Commercial Sales Co. has operated since its beginning in 1937 on the principle of doubling its business and its sales force every year.

Now Brauer is inviting Los Angeles aircraft plants to approach him with their postwar plans. He intends to enter the household appliance field with a "walk-in" refrigerator for the farmer, large enough to hold steer and hog carcasses. It will be shipped knocked down for assembly on the farm, selling for around \$1,500.

- **Trade Lines to Go**—Out of the scramble for outlets is certain to emerge a new versatility of retailing with more stores handling so wide a range of merchandise that orthodox trade lines are virtually obliterated, and a new level of integration of producing and distributing processes.

In general that integration will be achieved by the big distributors owning or controlling more of their suppliers, moving farther and farther back into fabrication and even raw material production for their own needs.

- **Producers in the Swim**—But in other fields, notably the automotive, the im-

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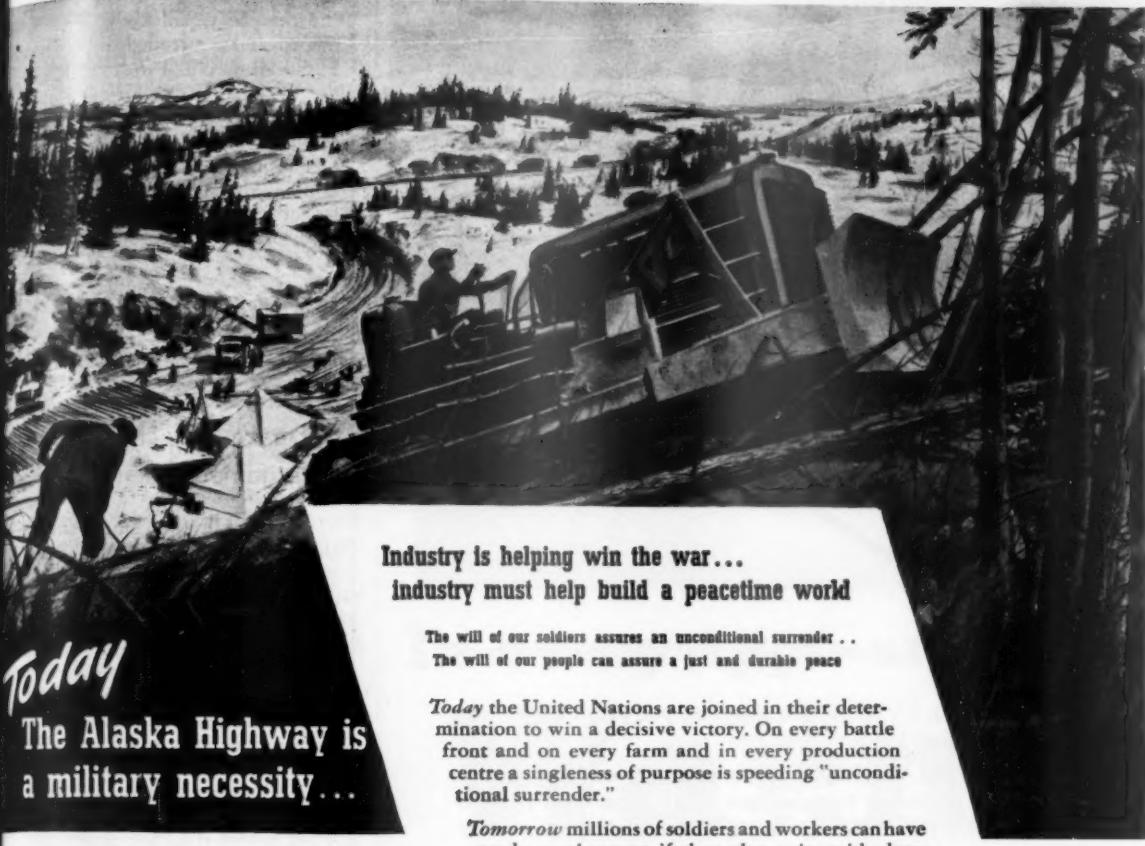
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Today

The Alaska Highway is
a military necessity...

Industry is helping win the war... industry must help build a peacetime world

The will of our soldiers assures an unconditional surrender...
The will of our people can assure a just and durable peace

Today the United Nations are joined in their determination to win a decisive victory. On every battle front and on every farm and in every production centre a singleness of purpose is speeding "unconditional surrender."

Tomorrow millions of soldiers and workers can have steady employment if they also unite with determination to bring about "a just and durable peace."

Prosperity can be realized only through the will of an informed and a united people. With their courage and their determination, the people's will to accomplish a righteous peace is irresistible.

People here, in common with people of other lands, can prosper materially and spiritually after the war ends—but only if now the peoples of the United Nations make loud their demands for "a just and durable peace."

THE INTERNATIONAL NICKEL COMPANY, INC.
Subsidiary of The International Nickel Company of Canada, Limited
New York, N. Y.





Cash on the line is an awfully important thing for every business concern.

If you pay cash for all needed supplies, you profit by the discounts you get and the lower prices.

COMMERCIAL CREDIT offers you a broad new service of engineered financing to take care of all your cash requirements, including loans to meet such special situations as:

1. To purchase other companies.
2. To buy out partners, officers or stockholders.
3. To retire bonds, mortgages, preferred stock or long-term loans.
4. To meet heavy tax and renegotiation liabilities and take advantage of tax-saving opportunities.
5. To purchase modern equipment—single units or complete plants.
6. To maintain adequate inventories.
7. To increase working capital to meet wartime requirements.
8. To discount payables and establish preferred credit standing.

Our full service is described in detail in the new booklet "**CAPITAL SOURCES**." Copies are being sent to representative manufacturers and distributors.

At any time, one of our representatives will call at your convenience and help you plan financing to meet your requirements. No obligation. For an appointment, or for detailed information, write the nearest office listed below.

Commercial Credit Company Baltimore

Subsidiaries: New York Chicago San Francisco Los Angeles Portland, Ore.

CAPITAL AND SURPLUS MORE THAN \$68,000,000

petus toward integration will come from the producers. Witness, for example, the marked expansion of lines in the owned and controlled outlets which F. Goodrich Co., Firestone Tire & Rubber Co., Goodyear Tire & Rubber have effected since the war began. Sporting equipment, apparel, and household items—Christmas presents for the whole family, virtually—may have been hard to get but not as hard as tires and automobile accessories.

Independents Up

And their increased share in sales means a proportional decrease for chains, although both gained dollarwise.

Harder hit than independent merchants by rationing, transportation limitations, price control, and shortages of merchandise and manpower, corporate chain stores got a slightly smaller share of total retail business this year (23.2%) than last (24.4%), according to a Commerce Dept. survey, although dollar volume increased, thanks to the general upturn in the retail sales total.

In 1942, chains did 13% better than in 1941 (on the basis of total dollar volume); in 1943, they have fared only 3.5% better than last year.

For independents, the picture is reversed. Independents' 1942 sales were only 1% over 1941; their '43 volume is 10.5% ahead of '42.

• Seen as Good Omen—Taking a turnabout as a good omen, independents are hoping the present competitive trends will carry over into the post-war period. Whether it does depends, of course, on the rather slim chance that independents have to match the attractiveness as outlets for the flood tide of merchandise that will pour from America's factories (page 86).

As the government's unofficial guardian of independent business, the Dept. of Commerce keeps a watchful eye on the chains. The department has now worked up a new and (its officials believe) accurate and complete series of data on chain store activity.

In the nondurable goods division (page 94), the chains' share of total sales dropped from 26.9% to 24.7%, with the heaviest losses, percentage-wise, being registered in nondurable goods, food, apparel, and general merchandise—the lines in which they have long maintained the strongest showing.

• Paradoxical Shortage—Although the Dept. classifies sales of general merchandise stores in the nondurable category, the slump in chains' share of this business can be attributed, paradoxically, to shortages of durable goods, for the mail order houses

have encountered tough sledding as their inventories of home appliances, farm equipment, and hardware have approached zero.

In the durable goods division as a whole, the chains now seem to be doing better than the independents largely because chain activity in this field has been concentrated in lines where it was possible to stay alive by finding substitute merchandise or expanding repair business. They increased their proportion of the total from 12.8% to 14.1%. While independent auto dealers became one of the war's major casualties, the chains' auto accessory outlets have fared not-too-badly by branching out into new lines of merchandise.

Fat Melts Away—The chains' comparative position has worsened in 1943 in spite of the fact that they weathered the first war year—1942—better than independents. The explanation (a hard one to prove statistically, since figures are meager) almost certainly lies in the fact that chains' inventories were carefully fattened up as a hedge against shortages, whereas independents', generally, were not. That fat has now largely been sold away.

Other explanations of the chain's failure to register as big gains as the independents during the past year are:

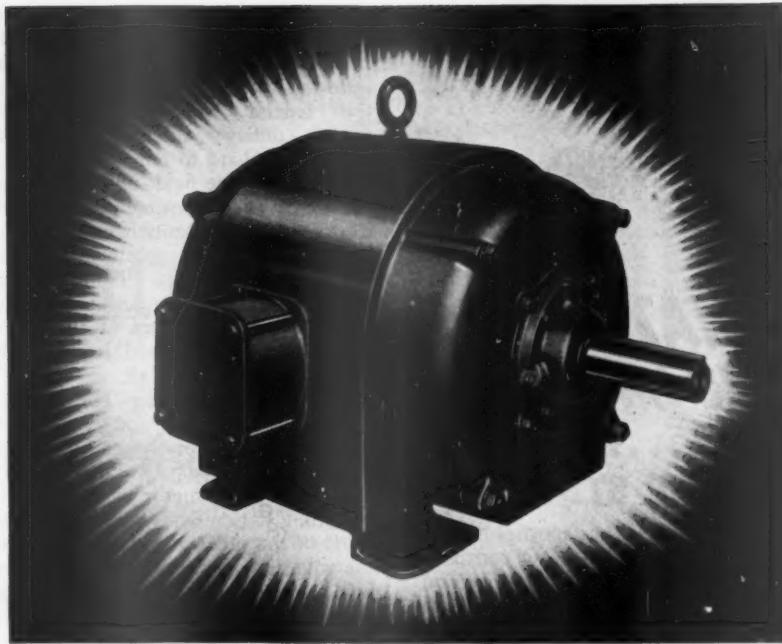
(1) Consumers, with cash in their pockets, are going after higher-bracket and luxury merchandise not generally available in chain stores. This has been particularly noticeable in the apparel and general merchandise categories. Additionally, the chains argue that they have been unable to meet this desire of consumers to trade up because of such government restrictions as OPA's highest-price-line limitation (BW—Sep. 25 '43 '92).

(2) The chain organization must spread scarce merchandise thin, distributing it among many stores. Hence, individual chain outlets are often poorly stocked. And with price (always the chains' big drawing card) no longer an object, consumers are buying where they find the goods. This has particularly affected food chains' sales. Also, housewives figure they are more likely to wangle a little bit extra of this or that out of their favorite independent merchant than out of a chain store manager.

(3) Suppliers, who once welcomed the chains' purchases because of their size, now shun them away from them for the same reason. Thus, the chains are sometimes hard put to get even their share of scarce goods.

(4) Chains generally have been harder hit by labor shortages than the smaller, more personal independent organizations. The independent merchant can (and does) keep his business going by putting grandmother and the kids behind the counter.

• Hit by Prosperity—Chain stores got the biggest share of total retail sales they have ever grabbed off (26.9%) in 1933 when depression-born penny-pinching gave their mass-merchandising, low-price techniques a wide edge over the independents. By 1937, their share of total sales had receded to 22.3%. How much of this worsening in the



In every type and size--

Wagner

M O T O R S

**reflect sound engineering
and modern manufacturing methods**

The global war has sent Wagner motors to all corners of the world—and everywhere these motors are proving their stamina and dependability. On naval ships, in planes, in tanks, as in factories, power plants, and in mines—Wagner motors are maintaining a reputation for excellent performance.

Ever since the company was founded 52 years ago, the Wagner name has been synonymous with quality of the highest degree. This recognition applies not only to Wagner electric motors, but also to Wagner transformers, fans, and industrial hydraulic braking systems.

If you need motors, or other products made by Wagner, consult the nearest of Wagner's 29 branch offices located in principal cities and manned by trained field engineers.



FOR VICTORY—BUY U. S. WAR BONDS and STAMPS

E49-10

Wagner Electric Corporation

ESTABLISHED 1891

6460 Plymouth Avenue, St. Louis 14, Mo., U. S. A.

ELECTRICAL AND AUTOMOTIVE PRODUCTS

THE MARITIME COMMISSION found wood a highly satisfactory construction material in its shipyard program. This huge assembly building at a record-breaking Liberty yard is 240'x860' and contains 143 trusses prefabricated and erected by Timber Structures, Inc.



MATERIALS ARE IMPORTANT ... BUILD WITH TIMBER STRUCTURES

● THE WAR has spotlighted the virtues of wood in heavy construction. Shortages in other structural materials have served to emphasize what many engineers and architects already know—that wood, properly designed and prefabricated, is often a sensible answer to construction requirements.

Fulfilling these requirements for timber trusses and heavy framing has been Timber Structures job for years. The virtues of wood—strength, economy, speed in erection, permanence, ready source of supply—have been brought together through the engineering know-how of this organization.

We welcome inquiries on the use of wood or other structural materials for your construction projects. Write to nearest Timber Structures office for illustrated book on the work we have done and are doing.



ORIGINALLY DESIGNED FOR STEEL by the U.S. Army Engineers, this ordnance repair shop was redesigned by Timber Structures engineers for wood. For this building (60'x220') 28 trusses, columns and bracing were prefabricated and erected. Approximately 50,000 board feet of lumber was used in the building.

TIMBER
STRUCTURES
INCORPORATED
ENGINEERING IN WOOD

Portland 8, Oregon • New York 17, N.Y.

chains' relative position was due to returning prosperity and how much to such antichain store legislation as the state fair trade and chain tax laws and the federal Robinson-Patman Act (which outlaws discriminatory sales practices) is hard to tell.

In at least one field—filling stations—the Dept. of Commerce figures show clearly the effect of antichain legislation. As a result of the prohibitive tax imposed first by Iowa in 1935 (BW-Jul. 13'35, p25) and subsequently by other states, the chains' share of the filling station business dropped from 35.5% in 1933 to 7.4% in 1943.

● **Wolf Isn't Howling**—The department's figures cover only corporate chains. The sales of cooperative groups and voluntary chains (which replaced the big oil companies' owned outlets in the filling station field) are lumped with those of the independents. The size of the voluntary chains' business in various fields is not accurately measured, but in the food field, where big outfits like I.G.A. and Red & White have grown up to meet chain competition, it has been estimated at 40% of the independents' total share.

The fact that the chains are faring a

little worse, comparatively, this year than they did last doesn't mean that the wolf is howling at their door. Total chain store sales are estimated at \$14,600,000,000 in 1943, as compared to \$14,100,000,000 in 1942, and \$6,600,000,000 in 1933.

"FREE ENTERPRISE" BOOST

An advertising campaign to sell "free enterprise" to America on a scale to be compared only with that of recent war bond promotions was approved by the National Assn. of Manufacturers at its meeting in New York last week (page 17).

Conducted by the National Industrial Information Committee, N.I.C., public relations subsidiary, the promotion will be launched in national magazines then spread to daily newspapers, radio motion pictures, outdoor and display advertising. It is scheduled for early next year.

Significance of the campaign, according to John Orr Young, cofounder of Young & Rubicam and consultant in the drive, is that "The N.I.C. has stopped talking to itself." The new campaign is aimed rather at the con-

Chains vs. Independents—A 15-Year Record

(I) How the Total Volume Has Been Split

	Annual Sales in Billions of Dollars			Chains as Percent of All Stores
	All Retail Stores	Chain Stores*	Independent Stores*	
1929	48.5	10.4	38.1	21.5
1933	24.5	6.6	17.9	27.0
1935	32.8	8.0	24.8	24.4
1937	42.1	9.4	32.7	22.3
1939	42.0	9.6	32.4	22.8
1941	55.6	12.5	43.1	22.5
1942	57.8	14.1	43.7	24.4
†1943	62.9	14.6	48.3	23.2

(2) The Chains' Share by Type of Store*

	Percent 1929	of 1933	Dollar 1939	Volume 1942	1943†
Total	21.5	27.0	22.8	24.4	23.2
Durable goods	11.9	10.9	10.1	12.8	14.1
Building materials and hardware	13.4	13.6	14.6	15.2	16.8
Home furnishings	14.2	15.2	13.8	12.3	13.3
Motor vehicles	9.7	5.4	2.7	2.2	2.0
Auto accessories	20.4	33.6	45.0	37.1	37.9
Jewelry	6.7	6.3	10.5	11.3	11.8
Nondurable goods	25.4	30.9	26.9	26.9	24.7
Food	31.7	38.3	32.9	33.5	30.6
Eating and drinking	14.1	12.7	8.6	6.7	6.1
Apparel	28.2	30.5	30.4	31.7	29.4
Filling stations	33.9	35.5	10.2	8.3	7.4
Drugs	18.5	25.0	25.6	25.0	24.7
General merchandise	25.2	31.9	41.6	43.0	40.5
Other retail stores	12.6	16.5	13.1	12.4	12.2

* Leased departments operated by chain organizations and mail order sales of merchandise have been included with the chain store data. Sales of utility operated stores, house-to-house selling, commissaries, farmer and consumer cooperative stores, state liquor stores, and all other types not specified above have been included in the independent store totals.

† Preliminary estimate—based on ten months' data.

Data: Dept. of Commerce.

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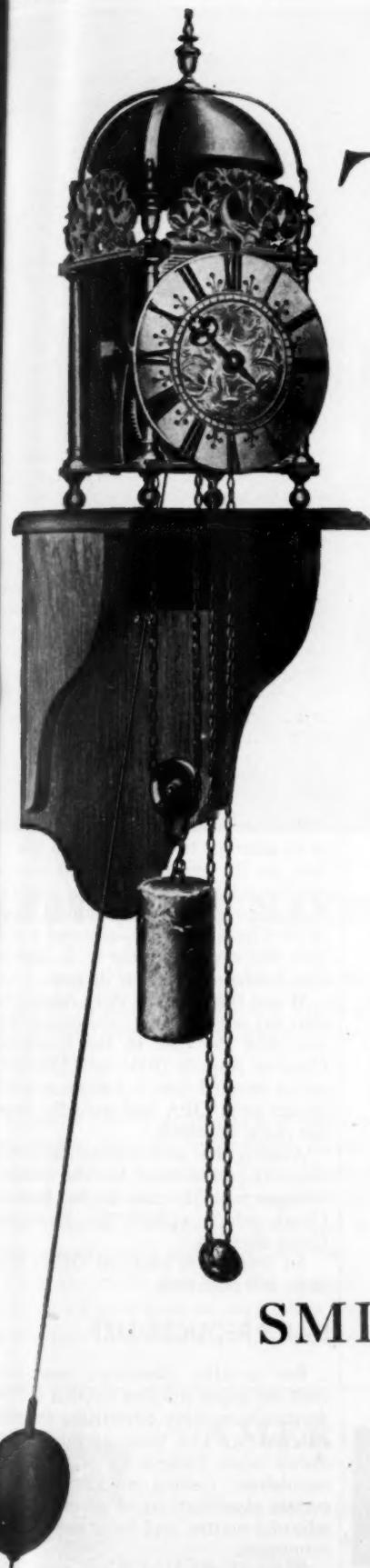
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Time will tell...

*A*LMOST literally around the clock, one of the most interesting and conclusive tests in all typewriter history is now going on.

With the halting of new typewriter production in the spring of 1942, and the purchase for our armed forces . . . from dealers and users alike . . . of all available machines of recent make, vital American industries have nevertheless kept going full blast. More paper-work than ever before, and fewer typewriters to do it with—including many a ten-year-old and many a rebuilt or much more ancient vintage. Intricate gears and delicate springs are taking an awful beating . . . and so, we may add, are America's secretaries. But the work is getting done.

So when the test is ended and industry once more resumes its peacetime routines, you're going to have a lot of first-hand evidence about typewriter reliability . . . under wearing rush and pressure. Time will tell . . . and more convincingly than we can. But we know this—a lot of Smith-Corona users are going to be mighty pleased with their wartime records.

L C SMITH & CORONA TYPEWRITERS INC SYRACUSE 1 N Y

SMITH-CORONA

Typewriters



Groton Plant



War production entrusted to us is precision work calling for craftsmanship of the highest order . . . skill won through years of making America's finest office and portable typewriters.



TITANS of the Floorways

Each of these three *Finnells* is *titanic* in its performance . . . in its floor-cleaning capacity . . . in its power to save man-power for war-power!

The *Finnell* Combination Scrubber-Drier shown in center illustration is a self-powered (cableless) model for use in ultra-vast war plants. It has a cleaning capacity up to 15,000 sq. ft. of floor per hour. Translate that into man-hour savings and it means that this *Finnell*, which scrubs and dries the floor in one operation, can clean in approximately one man-hour a floor area that formerly required seventeen man-hours! Independent of power lines, this *Finnell* is free to go wherever the operator guides it. Has gasoline engine.

Illustration at top shows a *Finnell* Industrial Dry Scrubber,—titanic in its power to dig through and remove heavily packed-down accumulations of dirt, oil, grease, and shavings. Ten times faster than hand-spudding!

At bottom of the above group is shown an electrically-driven Combination *Finnell*. The one machine scrubs, rinses, and dries the floor . . . and can clean a floor area the size of a city block in less than eight hours!

For free floor survey, consultation, or literature, phone or write nearest *Finnell* branch or *Finnell System, Inc.*, 3812 East Street, Elkhart, Indiana.

FINNELL SYSTEM, INC.

Pioneers and Specialists in
FLOOR-MAINTENANCE EQUIPMENT AND SUPPLIES

BRANCHES
IN ALL
PRINCIPAL
CITIES

sumer's interest in preserving the American way of living.

N.I.I.C. will pay for the campaign by subscription, drawing not only from the N.A.M., and its own 500 members, but from 5,000 additional subscribers from the ranks of banks, insurance companies, retailers, and other non-manufacturing groups.

MORE SUGAR FOR PEPSI-COLA

The Pepsi-Cola Co., having prospered on sugar sirup imported from its wholly owned subsidiary in Mexico through a loophole in the sugar rationing regulations (BW—Nov. 27 '43, p90), this week added to its foreign sources of supply.

Pepsi-Cola bought the Espana Sugar Mill, located near Perico, Matanzas Province, Cuba, from the Chase National Bank for a reputed sum of \$3,500,000. The mill has a capacity of 600,000 bags of sugar a year, and the property includes 66,000 acres of land, a standard gage railway, and a refinery.

Although Uncle Sam has been trying to coax molasses and raw sugar for alcohol out of Cuba (page 19) and the other islands, presumably the Pepsi-Cola mill will turn out sugar sirup which, concocted for ration-free import, will be poured into bottled drinks and the company's newly launched (BW—Sep. 11 '43, p86) fountain distribution.

NO DECISION

Safeway Stores, Inc., twice thwarted in its attempt to force OPA to take action on its complaints about assorted price regulations—action that would at least open the way to judicial appeal (BW—Dec. 4 '43, p101)—received a third blow this week when the U. S. Supreme Court refused to review its case.

When the Office of Price Administration did not act on its objections, Safeway took the case to the Emergency Court of Appeals (BW—Oct. 23 '43, p96) which decided that it had no authority to act until OPA had actually denied the chain's protests.

Arguing that such a situation literally froze its predicament for the duration, Safeway took the case to the Supreme Court, which upheld the Emergency Court decision.

So Safeway is back on OPA's doorstep, still objecting.

DAILY REDUCES SIZE

For months, America's newspapers took one paper cut after another without drastically revising advertising or editorial policy. The press adjusted to reduced paper budgets by holding down circulation, cutting margins, omitting certain classifications of advertising and editorial matter, and by scores of small economies.

But with the War Production Board

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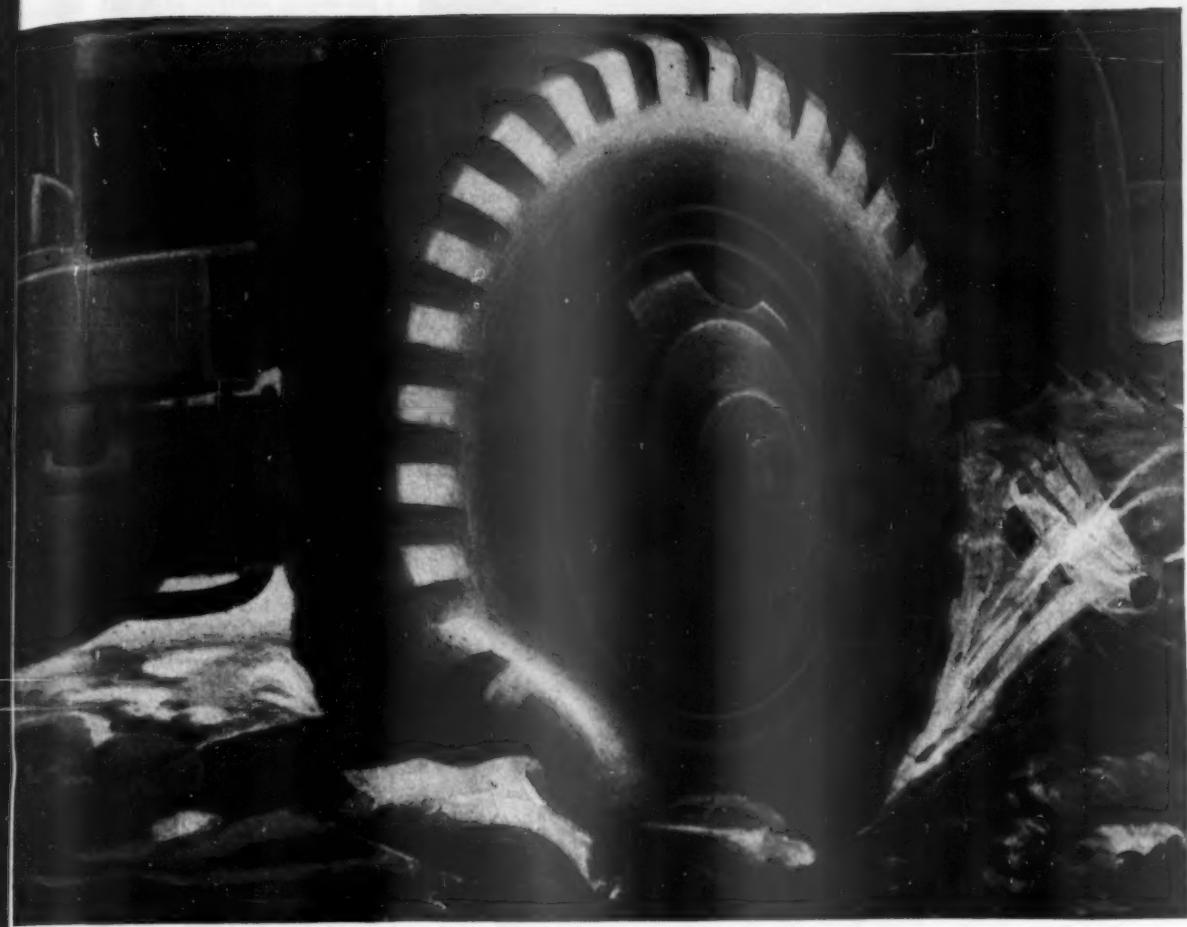
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WHY RAYON MAKES BETTER SYNTHETIC RUBBER TIRES

RAYON CORD, which has proved its worth in tires made of natural rubber on all the war fronts of the world, is now proving even more valuable in tires made of synthetic rubber.

The reason?

Synthetic rubber generates heat faster and dissipates it more slowly than natural rubber. Rayon yarn has the property of heat resistance to a surprising degree. Rayon tire cord retains more of its strength at the high running temperature of a synthetic rubber tire. It therefore increases the strength and life of the tire.

The story of the development of a special rayon yarn for tire cord goes back to 1936 when American Viscose Corporation established production of high-tenacity

rayon yarns to meet tire manufacturers' specifications. Then, tests by a prominent bus line resulted in 300,000 miles on a set of rayon-cord tires with seven retreads!

American Viscose rayon yarn for tire cords is especially engineered for high tensile strength and sufficient extensibility to distribute the load throughout the tire carcass. This means that the tires are better able to withstand shock and resist blowouts. What is equally important is that, when rayon is used, material savings can be made in the use of rubber.

At present, high-tenacity rayon for tire cords is reserved exclusively for the armed services. When peacetime production is resumed, this development will mean added benefits in safety and economy in your driving.



AMERICAN VISCOSÉ CORPORATION

Producer of CROWN* Rayon Yarns and Staple Fibers

Sales Offices: 350 Fifth Avenue, New York City 1; Charlotte, N.C.; Providence, R.I.; Philadelphia, Pa.

★ BUY UNITED STATES WAR BONDS AND STAMPS ★

*Reg. U. S. Pat. Off.

Copyright 1943—American Viscose Corporation

Will Your POST-WAR PRODUCT be

1. Lower in price?
2. Simpler to make?
3. More reliable?
4. Better looking?

Let us tell you how

FLEXIBLE SHAFTING

will improve your design!

★ By eliminating gears, housings, bearings, brackets, belting and other design complexities, Stow Flexible Shafting tends to simplify products . . . to reduce manufacturing time and cost . . . to improve wearability and freedom from service troubles . . . to simplify maintenance . . . and to streamline contours in accordance with today's prevailing trends.

★ If you, like so many manufacturers, are giving earnest thought to your post-war competitive position, don't fail to investigate the possibilities in this simplified shafting. Write today for a copy of Stow's latest data book; get a copy for your engineering department, too, and make flexible shafting the leading topic in your next design conference.



★ STOW FLEXIBLE SHAFT MOBILE POWER UNITS are speeding production in hundreds of large and small war plants by taking power-driven tools direct to the job — grinding, sanding, drilling, polishing, without need for moving the piece or assembly.



FLEXIBLE SHAFTING

STOW MANUFACTURING CO.

425 State Street, Binghamton, N. Y.

Inventors and Developers of Flexible Shafting

promising another 25% cut, beginning Jan. 1, at least one paper found it had to take more drastic measures.

The Miami Herald has announced that virtually all advertising would be eliminated from its columns temporarily. Until the Herald is able to renew its paper supply, its daily editions will total twelve pages instead of the usual 20 to 30, and the Sunday edition, which will carry a limited amount of display advertising, will drop from 60 to between 30 and 40 pages.

CESSNA FEELS THE PURSE

Whether it goes up and down like an elevator or lands on your front porch like a robin on its nest is a trade secret strictly guarded from competitors, but the postwar airplane which will be produced by the Cessna Aircraft Co., Wichita, Kan., already has a throng of potential buyers straining for a peek behind the curtain.

A plan has been devised by which purchasers of war bonds register the serial numbers of their bonds with the company in an amount sufficient to make a down payment. They receive, in return, priorities for postwar airplanes. The purpose of the registration is to supply salesmen with a list of prospects who will be able to buy after the war. Announced in March, it has resulted in the registration of \$1,350,000* in bonds.

A Quaker in Pennsylvania wrote that he wanted a priority for the purchase of an airplane but that his religious beliefs precluded participation in war, even to the buying of bonds. He had, however, contributed to the Friends Relief Society, he said, and was a blood donor. Cessna replied that proof of five blood donations would, in his case, establish a priority.

Properly attested documents certifying to blood donations were received by the company. Examination disclosed that, for all five trips to the blood bank, the wife of the air-minded Quaker was the donor.

GREETINGS BY AIRGRAPH

Gruen Watch Co. of Cincinnati probably will have the distinction this year of conveying Christmas greetings to more persons than any other business house in the world. Through the McCann Erickson agency, Gruen is inserting advertisements in 44 newspapers in 16 foreign stations where American service men and women are serving. The bill will be about \$5,000.

Last Easter, Gruen sent greetings through the same channels and got responses from all over the globe. The advertising layout was transmitted by Airgraph, the British equivalent of V-mail. The Christmas copy was mailed in time for publication the week of Dec. 19.



Truck-Trailers Shuttle Shells For Shickelgruber

The Nazis and Japs didn't order the Hunter Manufacturing Corporation is producing, but we're taking delivery every day. The Hunter plant is turning out for our armed forces.

Naturally, production is under way. There's a lot of material here . . . projectile and fuse and finished shells . . . and we must move quickly and safely. Fruehauf Trailers took over the job a year or more ago because they could carry up to three times as much as could the trucks previously used . . . and also because they could be "shuttled", multiplying their efficiency still further.

Truck and Driver Never Idle

"Shutting" means that one truck carries two or more Trailers. While one Trailer is being loaded at a shell magazine and a second is being unloaded at the shell plant, truck and driver are en route to the third Trailer. Truck and driver are always busy . . . there's no waste of manpower or equipment.

Trailer loads range up to 20 tons, yet they're pulled by 3-ton trucks. This fact, plus the "shuttling", enables the five Fruehauf Trailers and two trucks in the Hunter fleet to do the work which, company officials estimate, would otherwise require ten trucks.

Over-the-Road "Conveyor"

Trailer advantages don't stop there, though. Since the Trailers are loaded direct from the shell assembly line, they save factory storage space and one extra handling. They do many emergency jobs, too. For instance, there was the quick trip to Detroit for a drastically needed 15-ton machine tool,



The Hunter Manufacturing Corporation was among the first American companies to get into production of heavy artillery shells. The illustration shows the filling of TNT shells.

which saved at least a precious week.

The Hunter experiences are typical of thousands of others in more than one hundred different lines of business . . . where Truck-Trailers are doing work that couldn't be done as well, if at all, by any other method. America could not get along without them.

Motor Transport Will Get Your Job Done

If you aren't using truck transportation, have you ever challenged your shipping costs and over-all efficiency with the job that professional haulers can do for you? The fact that the for-hire motor transport industry has grown so rapidly is indicative of what others think of its services. Why not at least get the facts and stack them up against your own records?

FRUEHAUF TRAILER COMPANY

World's Largest Builders of Truck-Trailers

Service in All Principal Cities

Back the Attack
BUY
WAR
BONDS

A TRUCK IS LIKE A HORSE
IT CAN PULL MORE
THAN IT CAN CARRY

FRUEHAUF TRAILERS
"ENGINEERED TRANSPORTATION"
REG. U. S. PAT. OFF.

LABOR

Break for Dads?

Hershey announces new deferment policy; actually, it means little change in drafting of pre-Pearl Harbor fathers.

A new occupational deferment policy has been mapped out by Maj. Gen. Lewis B. Hershey, Director of Selective Service, in the wake of Presidential approval of the newly enacted father-draft measure.

Under new orders sent out to local draft boards, pre-Pearl Harbor dads are to receive a special deferment break; nonfathers are going to find it considerably more difficult to secure deferments (those under 22 are likely to lose all claims to deferment, according to regulations being considered).

• **Saves Face for Congress**—These adjustments could have been made by Hershey at any time, but the general waited until the father-draft measure became law, to help Congress save its face on the issue. Actually, the law will have little effect on the drafting of fathers.

Its main provision outlaws the order listing certain jobs as nondeferrable. But this order had become meaningless on Oct. 1 when the drafting of all fathers was authorized.

• **May Induct 1,000,000**—Selective Service hopes to liquidate its present father class—3-A—by July 1, 1944, reclassifying about 6,000,000 fathers into 1-A, 2-A, 2-B, 3-D, and 4-F in the process.

About 1,000,000 are expected to drop into 1-A for almost immediate induction into the armed forces, in the light of the requirements of present military manpower schedules.

• **McNutt Loses Power**—A more important provision of the law revokes President Roosevelt's delegation of authority over Selective Service to Manpower Commission Chairman Paul V. McNutt and further specifies that the President may delegate this power only to Hershey.

WMC officials are now endeavoring to persuade the White House to vitiate the effects of this ruling by administrative action requiring Hershey to be guided by McNutt. Selective Service officials are fighting this move on the grounds that it would be an evasion of the intent of Congress.

• **Standards Too High?**—The measure also directs Roosevelt to set up a medical commission of five doctors to review Army and Navy physical standards with a view to inducting more 4-F's. Selec-

tive Service officials don't expect much gain by this move.

The direction that all available nonfathers be taken on a nation-wide basis before fathers are inducted is not ironclad and merely writes existing Selective Service regulations into law.

Net effect of the provision that appeal boards having jurisdiction over a worker's place of employment review occupational deferments is to add some red tape to the former method of handling deferments.

Bonus As Usual

Renegotiation for cuts accustomed Christmas melon for employees; Jack & Heintz also distributes holiday fund.

When 1,300 Lincoln Electric Co. executives and wage earners went to Cleveland banks this week with a total of \$3,000,000 in year-end bonus checks, plus \$300,000 in accumulated overtime pay, they were reminded that an equal amount of money was in the company's bank account because J. F. Lincoln had taken his fight against Navy renegotiation to court (BW—Nov. 13 '43, p14).

"We refuse," declared Lincoln, "to renegotiate our own workers."

• **Bonuses Averaged \$2,250**—The highest bonus was \$50,000, paid to the

firm's chief engineer; the lowest \$25, paid newcomers. J. F. Lincoln, president, and John C. Lincoln, man of the board, were the only employees who got none; the others averaged about \$2,250 each.

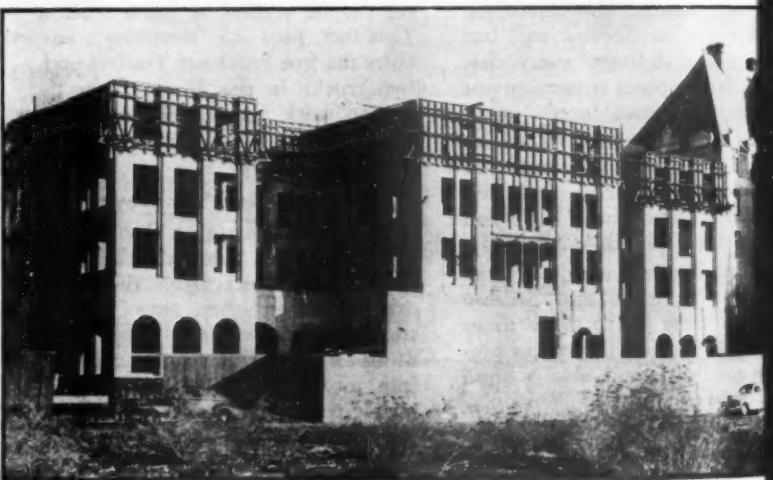
Because of base pay raises during the year, the bonus slightly exceeded that paid a year ago, despite application of the 20% withholding tax.

• **Second Threat**—Lincoln bonuses a second government threat from Treasury Dept. Officials of the Bureau of Internal Revenue are entangled Lincoln in a court fight not connected with renegotiation through which bureau hopes to collect \$1,600,000 in 1941 income which it contends was distributed by the company via excessive bonus payments.

Lincoln argues that the bonus did not represent excessive profits, but growth of efficient production as a result of incentive wages.

• **Another Melon**—Cleveland's noted exponent of incentive wages, Jack & Heintz, Inc.—was prepared to pay its annual bonus this week. Last year it paid a Christmas bonus of \$550,000. Payment of equal average bonuses this year would bring the total to about \$2,000,000, for an expanded force of some 7,400 "associates," William S. Jack calls his workers.

Jack & Heintz associates recently lied behind their boss in a message to individual members of Congress urging repeal or amendment of the Renegotiation Act. "We are willing to work twelve hours a day, seven days a week, at 80% of our physical capacity," the message said. They urged their congressmen to see to it that renegotiation



APARTMENT REVIVED

Originally designed for the elite of Los Angeles, an apartment-house white elephant eventually will house war workers. The empty shell (above) is being completed by the War Housing Administration which is pouring

in \$200,000 after the \$400,000 already spent on it. After lying in a corner induced by depression, for 15 years the apartment will become a six-story building of \$65-a-month living units. It will thus ease a critical housing shortage and remedy an old eyesore in a smart residential neighborhood.

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Renegotiation Fight—Jack also is fighting for an amount about the size of his company's year-end bonus. On sales of \$4,000,000 last year, Jack & Heintz had about \$6,000,000 income tax, had \$500,000 left before renegotiation, and reportedly \$156,000 afterward.

At Thanksgiving, associates got a one-day rest. Working hours have been reduced recently to 60 a week, but Jack says his gang they'll go back to the 48-hour week after Jan. 1.

Steel Pay Argued

C.I.O. union gets down cases with Big Steel on 17¢ demand—and Weir, as usual, is hovering in the background.

United States Steel Corp. subsidiaries and the C.I.O. United Steelworkers of America opened negotiations this week against a familiar backdrop on the union's demand for a wage increase. Each time the union and Big Steel have met to discuss wages, the issue has been decided for them by Ernest T. Weir's Weirton Steel Co., one of the two major producers beyond the C.I.O. whose influence (BW-Nov. 13'43, p. 36). The last time—April, 1941—Big Steel negotiations were rumbling toward threatened strike when Weir announced he had yielded an increase of 17¢ an hour to the unaffiliated union of his employees at Weirton, W. Va. U.S. Steel and the rest of the industry had little choice but to follow suit.

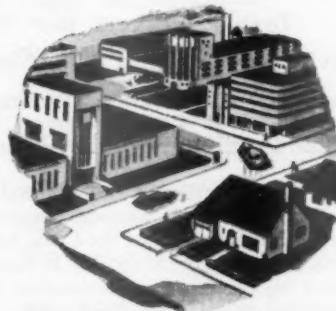
Ante Boosted—Again the Weirton union has interjected fresh wage demands just as the C.I.O. begins to push its proposals that Big Steel and the rest of the companies under union contract advance the basic rate for common labor from 78¢ an hour to 95¢. Weirton, however, was asked for \$1.

Weir is powerless to accede without authority from the National War Labor Board—which would not be granted at this time when the wages of the entire industry, as well as the future of the little Steel formula, are at stake. But there is nothing to prevent the West Virginia strategist from "granting" the increase and allowing NWLB to shoulder the blame for disallowing it.

"Cutback" Strike—As the wage-increase negotiations got under way Tuesday in Pittsburgh, a "cutback" strike interrupted work at National Tube Co., one of the subsidiaries. Two cranemen precipitated the strike in protest against taking lower-paying jobs when a slackening of orders forced the shutdown of one furnace. When other cranemen joined the strike in sympathy, 500 were made idle.

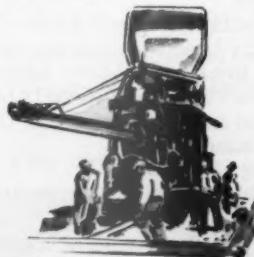
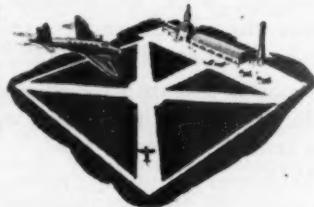


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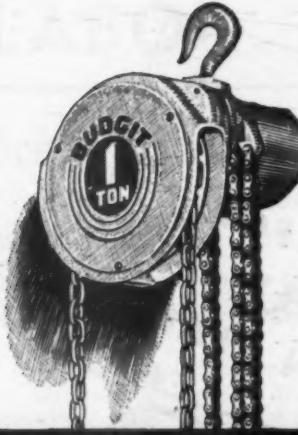
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Entirely new design based on today's knowledge, the use of alloy steels, steel stampings and heat treatments are responsible for this astonishingly reduced weight.

This Chain Block lifts more, easier and faster than any of the same general type. This result is obtained by anti-friction bearings and working parts operating in grease that is sealed-in. No dust or dirt may enter to affect the efficiency.

The 'Budgit' Chain Block is equipped with an automatic brake that holds and controls the load under all conditions.

Another feature is the efficient roller-type load chain which will not stretch, stiffen or bind.

Wherever manual lifting must be done, the 'Budgit' will do it easier and faster.

'Budgit' Chain Blocks are built to lift up to $\frac{1}{4}$, $\frac{1}{2}$, 1 and 2 tons and prices start at \$59.50 list. Send for Bulletin No. 357 containing complete information.



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'BUDGIT' Chain Blocks

MANNING, MAXWELL & MOORE, INC.

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Builders of 'Shaw-Box' Cranes, 'Budgit' and 'Load Lifter' Hoists and other lifting specialties. Makers of Ashcroft Gauges, Hancock Valves, Consolidated Safety and Relief Valves and 'American' Industrial Instruments.



OLDSTERS AT WORK

Among Douglas Aircraft employees at Long Beach, Calif., the accent isn't entirely on youth. Plenty of middle-aged and elderly workers are putting in full shifts daily on precision jobs.

On the Warpath

Textile workers join the anvil chorus against Little Steel formula; A.F.L. unit threatens strike in default of pay boost.

Textile workers, following the lead of the steel, auto, and aluminum unions, are on a rampage against the Little Steel formula. Both C.I.O. and A.F.L. textile union leaders expressed themselves vehemently on the subject last week.

• **Carolinas Threatened**—Some 300 representatives of the A.F.L. United Textile Workers of America, in conference at Asheville, N. C., threatened to strike 57 textile mills in North and South Carolina unless the National War Labor Board listens to their demands for higher wages.

Representatives of the C.I.O.'s Textile Workers Union of America made no strike threats, but they adopted strong resolutions calling for a 10¢-an-hour general wage increase and a 60¢-an-hour minimum.

• **Rehearing Demanded**—The A.F.L. is seeking a 15¢-an-hour increase with an additional 5¢ for the second turn and 10¢ for the third. The union's leaders refuse to accept NWLB's wage bracket for textile workers, and are asking for a rehearing on the entire wage scale of the industry.

Unless they get the hearing, and get it quickly, union leaders say they will call a strike affecting 80,000 workers.

Typical is a metalworking department where white-haired men (above) pound back into shape bomber parts that are warped in heat-treating processes. Their average age is 55; some are over 60. They include retired salesmen, oil riggers, and craftsmen

• **Squeezed by Living Costs**—In the C.I.O. union, some 200 delegates representing the cotton and rayon workers of 13 states met last week in the first joint conclave of northern and southern textile workers to discuss wages. They asserted that the cost of living has risen 35% in textile areas while the Little Steel formula has prohibited a rise of more than 15% in wages.

The cotton-rayon workers' attack on the wage ceiling was said to be the opening gun of the C.I.O. union's national campaign to fatten the pay envelope of 1,500,000 workers in the industry.

LABOR FOR CIVILIAN GOODS

Agreement on a planned program to recruit labor for essential civilian goods and services has been announced by the War Manpower Commission and WPB's Office of Civilian Requirements.

Working through local and regional representatives, WMC and OCR will decide "locally needed" civilian goods and services. WMC will then issue instructions to U. S. Employment Service offices and other referral agencies to allocate the necessary workers.

Even in acute labor shortage areas, planned disposition of available manpower has taken the strain off civilian life without dislocating war production unduly. WMC's recent removal of Burlington, Iowa, and Savannah, Ga., from its Group I list of acute labor shortage areas to Group II (BW-Nov. 13'43, p104) was due in part at least to local initiative in allocating the forces at hand.

Railroads Demur

Carriers notify FEPC they won't obey negro-hiring order; unions are silent. Fight may be taken to Congress and courts.

Sixteen southern railroads have made known their intention of carrying to Congress and the courts, if necessary, a fight against the President's Fair Employment Practices Committee.

jurisdiction Questioned—The carriers informed FEPC that they would not obey the agency's Nov. 24 order requiring them to grant equal employment opportunities to Negro firemen (BW-11-443, p90). The carriers contend that the FEPC has exceeded its jurisdiction and has issued orders which interfere with the jurisdiction of the National Mediation Board set up under the Rail-Labor Act.

No word was received immediately from any of the seven railroad unions which were ordered simultaneously to "cease and desist" from discriminatory practices with respect to union membership and union rules.

Congressmen Served—The railroads sent copies of their rejoinder to members of both houses of Congress—for their information. The legal questions raised in their reply made it plain that they were considering a court challenge. The carriers' flat defiance leaves the FEPC in a peculiar position. In a similar situation, the National War Labor Board would refer the question to the President "for such action as you may deem appropriate." The FEPC hesitates to take the case to the White House because it is a hot potato, and precedents are lacking to guide executive action.

Is Compromise Possible?—Malcolm Ross, FEPC chairman, has hinted that a compromise solution, putting the order into effect gradually, might be acceptable to his committee.

MINERS SPURN DEFERMENT

Patriotism of the striking coal miners has been discussed at length during the past year. At Nanty Glo., Pa., members of the United Mine Workers employed in the large Heisley Coal Co. mine are answering the implied challenge by threatening to strike if they are not drafted into the armed forces on the same basis as the rest of the nation's citizens.

The Nanty Glo local passed a resolution saying that the coal miner "is patriotic enough to want to have the right to answer his country's call whether he enlists or is drafted."

The action followed issuance of instructions by Deputy Coal Mines Ad-



This WOOD Protects Cattle On Their Way to Slaughter

CATTLE PENS made of Wolmanized Lumber* have a double advantage. They're long-lived and they protect the cattle against injury; pens require less maintenance and hides bring higher prices. Here's why—

WOLMANIZED LUMBER is highly resistant to decay and termite attack; vacuum-pressure impregnation with Wolman Salts* preservative makes it that way. Fence rails, cattle guards, loading chutes and platforms made of this long-lived wood need little attention to keep them in first class condition. Neglect, unavoidable in these days of labor scarcities, does not result in construction going to pieces in a hurry.

WOLMAN SALTS, the preservative which gives ordinary wood long life, is not injurious to the cattle. And with sound, unrotted wood, there are no splinters to tear the hides.

MILLIONS OF FEET of Wolmanized Lumber, some of it in service over eighteen years on many types of construction, have proved its ability to stand up on tough assignments. The usual advantages of building with wood are retained—ease and speed of erection, lightness, strength, resilience, and good insulating properties. American Lumber & Treating Company, 1656 McCormick Building, Chicago 4, Illinois.

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REMINGTON RAND

BUFFALO 3, NEW YORK

ministrator C. J. Potter that operators managers of government-owned mines should apply immediately to local draft boards for deferment of all miners.

U.M.W. locals in Portage and Beaverdale, Pa., sometime ago took action protesting deferment of miners.

Keep 'Em Happy

Aircraft plants maintain personal services to save time for employees; surplus staffs are being shifted from office to shop.

On recommendation of the Army, West Coast plane plants are cutting down the number of employees not directly concerned with production. • Work or Get Out—In this weeding-out process, office employees who are not absolutely essential will be offered the alternative of working on the production line or leaving.

The idea is that some paper-work departments have become overstaffed, that a portion of this surplus personnel can be transferred to direct production, that those who prefer to leave will be available for downtown work in offices or department stores.

Despite rumors to the contrary, the labor situation in West Coast plane plants, while slightly easier than a few weeks ago, still is tight.

• Services Provided—Excessive turnover and absenteeism have been reduced somewhat as a result of personal services installed by management to help employees handle such problems as shopping, transportation, bank loans, etc. Quits still run about 20,000 a month in the seven major West Coast plants.

The Aircraft War Production Council, top coordinating group for Coast plane makers, reports member companies now maintain 88 different employee services, some familiar, as helping with income tax returns and arranging loans, and some that handle the chores that consume employees' time (as going downtown to take care of a traffic ticket).

• General Store—Consolidated Vultee is one firm that takes care of traffic tickets. The employee may be fined, but he loses no time. At Vultee Field, near Los Angeles, the company started and financed an employee-operated store that sells clothing, furniture, auto parts, and other goods, putting the profits into employee sports.

Other Vultee services: getting theater tickets, watch repairs (one week), shoe repairs (three days), laundry (one week), appointments with eye and other specialists.

Lockheed maintains a voting registration service for employees who, in California, may register anywhere, and

All-States Club where employees may get people from home. Shows Are Frequent—Shut up on hard-hour jobs, workers get two peevish feelings they never have time to care for things at home, and the idea that they are missing shows and hobby gatherings, that they are out of the world and falling behind.

North American puts on a paid show lunch once a week varied with boxing and wrestling matches to meet different needs of entertainment. Lockheed's movie shows make it possible for women employees to keep up with what's what in the stores. Douglas cultivates employees' hobbies by holding exhibitions of photographs, paintings, needlework, metal work, and collectors' items from all over the world to famous flyers' autographs.

Jury calls take time, but war workers may be excused. Vega Aircraft does not do this job for its personnel. Bill adjustments for the employee who paid in cash but lost his receipt are another Vega service.

Free Loans—Emergency needs for cash had employed people many a long chase. Most of the companies have loan facilities, lend without interest. Ryan Aircraft lent more than \$11,000 the first eight months of this year at no interest. Only \$43 out of the \$11,000 was lost.

Briggs Balks

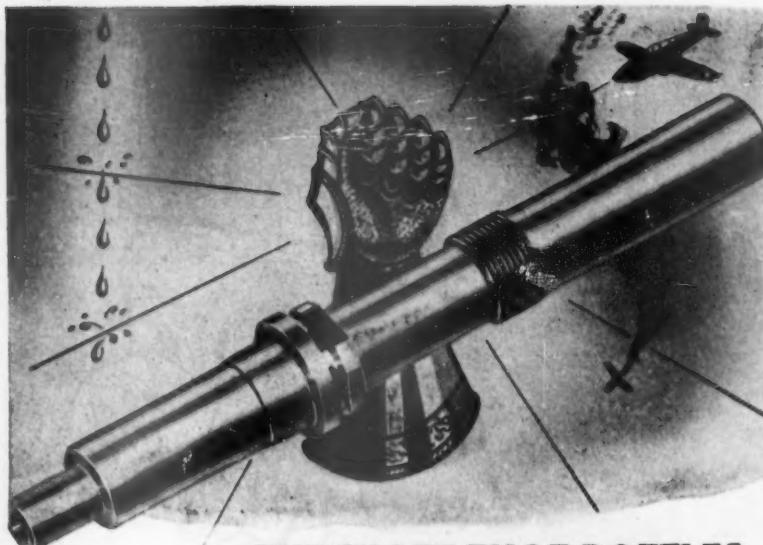
Gives m. of m. ultimatum
as U.A.W. uses picket lines
to boost its collections from
delinquent members.

Labor thunderclouds gathered last week end at Detroit after Briggs Mfg. Co. bluntly told its employees in large newspaper advertising space that it would not voluntarily renew a maintenance-of-membership clause in its forthcoming labor contract.

• Dues Collection Drops—The declaration followed what appeared to be development of a flaw, at least at Briggs, in the program of the C.I.O. United Auto Workers Union's plan for holding its membership through the war with an m. of m. clause. The flaw is an inability to collect dues.

Lacking a checkoff, dues collections by Briggs Local 212 have been falling steadily. Last week the prewar Detroit technique of establishing a "dues picket line" was revived at Briggs to step up collections.

• Pickets Jeer Workers—Those unable to show paid-up membership cards ran the gauntlet of a double line of pickets to the jeering cry of "scab." More important, nonmembers, particularly new women workers, claimed the picket line had actually operated to stop their entry into the plant. Complaints of interfer-



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This rotor shaft on an aircraft magneto is just one of the many spots where corrosion has been licked by Stainless Steel.

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LT S-T-R-E-T-C-H-E-S SYSTEM

ence with workers trying to get to the jobs brought a police warrant for Emile Mazey, president of Local 212, a picket line leader.

Briggs officials said the establishment of the line had resulted in absences of about 2,500 workers toward the end of the week, and assailed the action as "plain sabotage." One department was closed by a strike when workers refused to work with a complainant against Mazey.

• **Claims Bonus Is Issue**—Acting on its position, the company wrote Mazey that "we have concluded that we should agree only to sole collective bargaining." The letter claimed that Mazey had been "repeatedly warned" of contract violation in attempting to coerce members into dues payments and to coerce non-members into joining.

Ducking the dues collection issue, Mazey said the controversy had arisen because the company had not consulted with the union on the size of its Christmas bonuses.

Payments of \$1,750,000 were scheduled to be made before Christmas, in accordance with National War Labor Board procedure, but the union's stand is for higher payments—24 hours' pay for workers with the company three months, scaling up to 144 hours for five-year employees. This is about 50% above the scheduled payments from \$45 for one-year seniority workers up to \$90 for five-year employees.

DRAFT BOARDS TOUR PLANT

To squelch some of the talk that war industries are hoarding labor and obtaining unwarranted draft deferments, Curtiss-Wright Corp. recently invited members of local draft boards in Western Pennsylvania and Eastern Ohio to make an inspection tour of its plant at Beaver, Pa.

Specifically, Curtiss-Wright hoped to demonstrate why its own skilled welders could not be spared for army service.

The invitation was received with mixed reactions. Members of 53 boards accepted eagerly. But others, sensitive to charges that they have been "collaborating" with industry, flatly refused, stating publicly that they resented the invitation as casting aspersions on their judgment.

VETERANS GET WAR JOBS

A good proportion of the 750,000 veterans of this war who have been discharged from the Army, Navy, or Marine Corps are working in war plants.

The Army released 585,000 from Dec. 1, 1941, through Sept. 30, 1943. The Navy discharged 133,155, and the Marine Corps 34,759, through Oct. 31, 1943. For medical reasons, the Army released 370,000 and the Navy and Marines 46,961. Less than 10,000 dis-

ages were due to battle injuries. Some 8,000 were men over 38 years old. War plants get first call on discharged veterans. Airplane companies in particular want them. Some 400 are working at Douglas Aircraft Co.'s El Segundo (Calif.) plant. North American Aviation, Inc., has 686 honorably discharged veterans in its Dallas (Tex.) division. Returning servicemen add considerably to morale by establishing high war production records. They usually keep on the job in spite of disabilities. Their own morale goes up too when they find that they can hold a good job and can continue to contribute to the effort in spite of disabilities.

SUNDAYS OFF

Sunday closings in the nation's shipyards further accent the shifts in war production that ease the pressure in one case of operations even while increasing it in another (page 15). The number of workers employed and the total hours of work are not affected.

In announcing the Sunday closings for the shipbuilding industry, the Maritime Commission's deputy chairman, Adm. Howard K. Vickery, stated that the merchant ship production setup is functioning smoothly enough to maintain the present annual output of 20,000,000 tons a year.

Now that the ships are rolling off the ways at the rate of five a day, the Maritime Commission says that workers are free for relief from the overtime they have been working. Sunday absenteeism has been increasing, and workers who showed up were not at peak efficiency. Vickery gave no indication, however, that the new working hours would apply to landing craft production. Some 10,000 invasion craft are being rushed to completion under an overriding priority directive giving them precedence over any other item in the munitions program.

RULING ON CONTRACTS

Union contracts are voided by change in plant ownership unless they specifically state otherwise or unless the plant transfer patently was made to escape a collective bargaining agreement. This ruling just issued by the National War Labor Board may be a troublemaker during postwar reconversion when many plants likely will change hands.

NWLB, in a clear-cut ruling, held that in the absence of a contract clause to the contrary or of any evidence that the sale was made merely to evade union obligations, transfer of plant ownership will relieve the new operators of previous collective bargaining agreements and will make any subsequent questions on employee representation come under the usual procedure of the National Labor Relations Board.



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the best
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MAXIMUM PROTECTION



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If the nature of your business requires the security afforded by this war-time quality Chain Link, it is quite probable that you are eligible to get it.

Standard, heavy construction framework is available, and sales and erection service may be had anywhere.



Typical war-time installation using standard framework without top-rail.

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WAR BONDS

More Stock Sales

Value of new flotations runs substantially ahead of last year; November bond offerings were disappointing.

November offerings of new securities went at a far slower pace than Wall Street generally had been hoping. Only six offerings of corporate bond issues, involving less than \$39,000,000, hit the market last month, a total well under the October showing. As a result, even including the municipal issues, 1943's eleven-month total just slightly exceeded \$1,000,000,000, the smallest amount for the period since 1933.

• **Better Total for Stocks**—The showing, however, with respect to new stock offerings was a bit better. Such flotations, though numbering but five, involved in excess of \$37,000,000, the largest monthly total since May, 1941. This brought the eleven-month total of such

financing to \$136,113,000 vs. \$80,700 in 1942.

So far as bond issues are concerned December has started off much better. The first week's total was \$25,350,000 due to the sale of a \$25,000,000 Central Power & Light first mortgage 3½% issue. The second week saw the sale of \$42,000,000 Utah Power & Light 3% bonds, plus some \$5,000,000 of municipal issues.

• **Big Issue Snarled**—It had been hoped, as well, to offer at competitive bidding this week \$38,000,000 Michigan Consolidated Gas first mortgage bonds and two large banking groups were reported as anxious to bid for issue. However, due to the uncertainty just injected into that picture as a result of the passage of a special Detroit excise tax on utilities (BW-Dec. 11, p105), it did not materialize. Moreover, that offering is not apt to be seen before the year end.

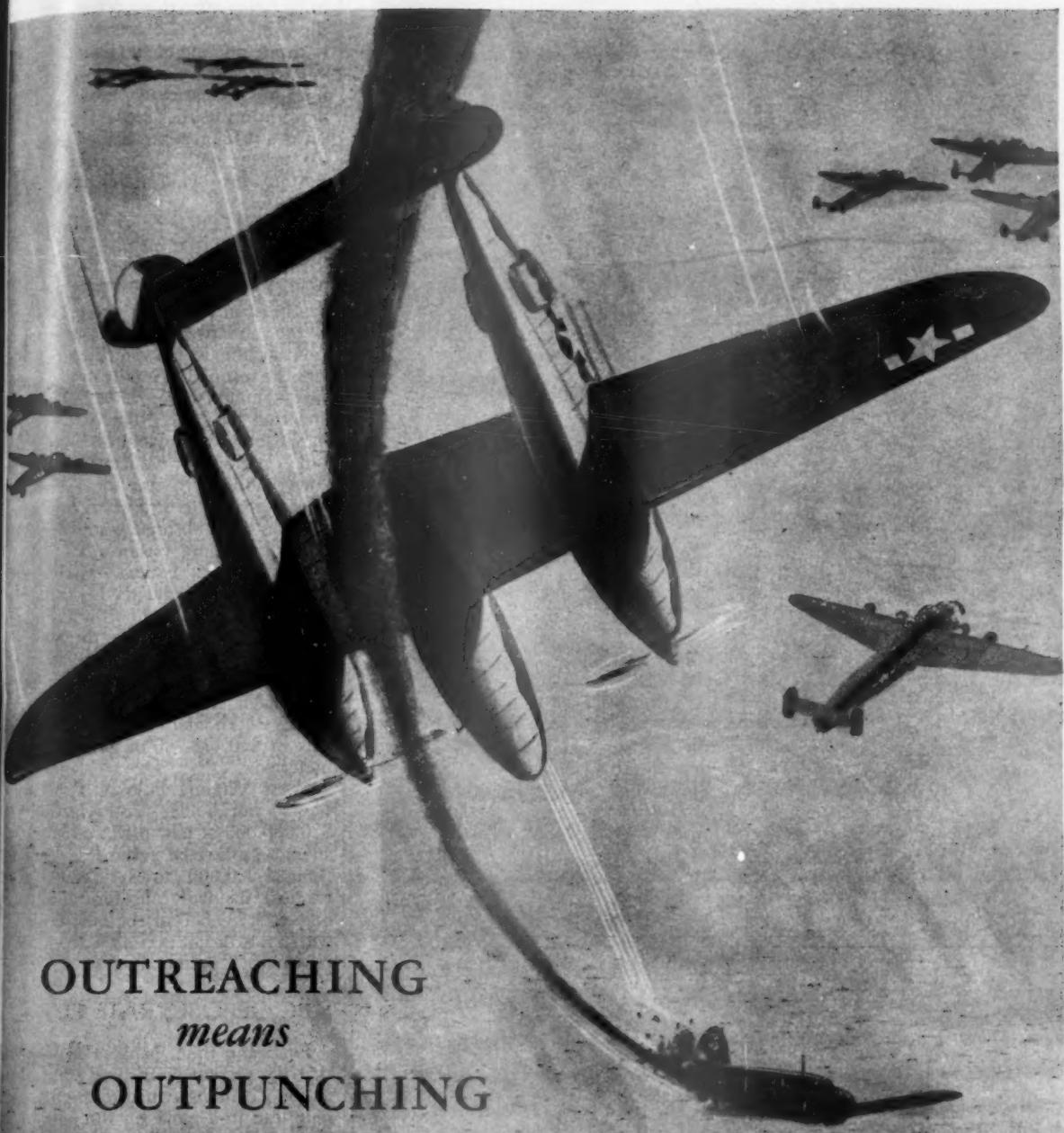
The \$65,000,000 Illinois-Iowa Power issue counted on as a candidate for December offering is still uncertain due to some Security & Exchange Commission



RISING BANKS

By bringing their services to war plants, banks—shaking off their attitude of forbidding dignity—are enlarging their scope of business (BW—Sep. 25 '43, p82). For example, New York's Manufacturers Trust Co. was designated by the Treasury last fall to set up shop in the Brooklyn Navy Yard, to cash workers' checks, accept deposits, provide other services. It inaugurated portable offices that could be swung by cranes from one section

of the yard to another, installed a large branch office in a main building. Encouraged by the response, the company carried out a similar project in the Naval Clothing Depot nearby, instituting floor-to-floor tellers' units in elevators (above). Up until the middle of this month the company not only has cashed \$9,000,000 worth of Navy Yard checks, but also has picked up 2,500 new deposit accounts there. And in two months of operation at the clothing depot, more than 500 workers have opened accounts.



OUTREACHING *means* OUTPUNCHING

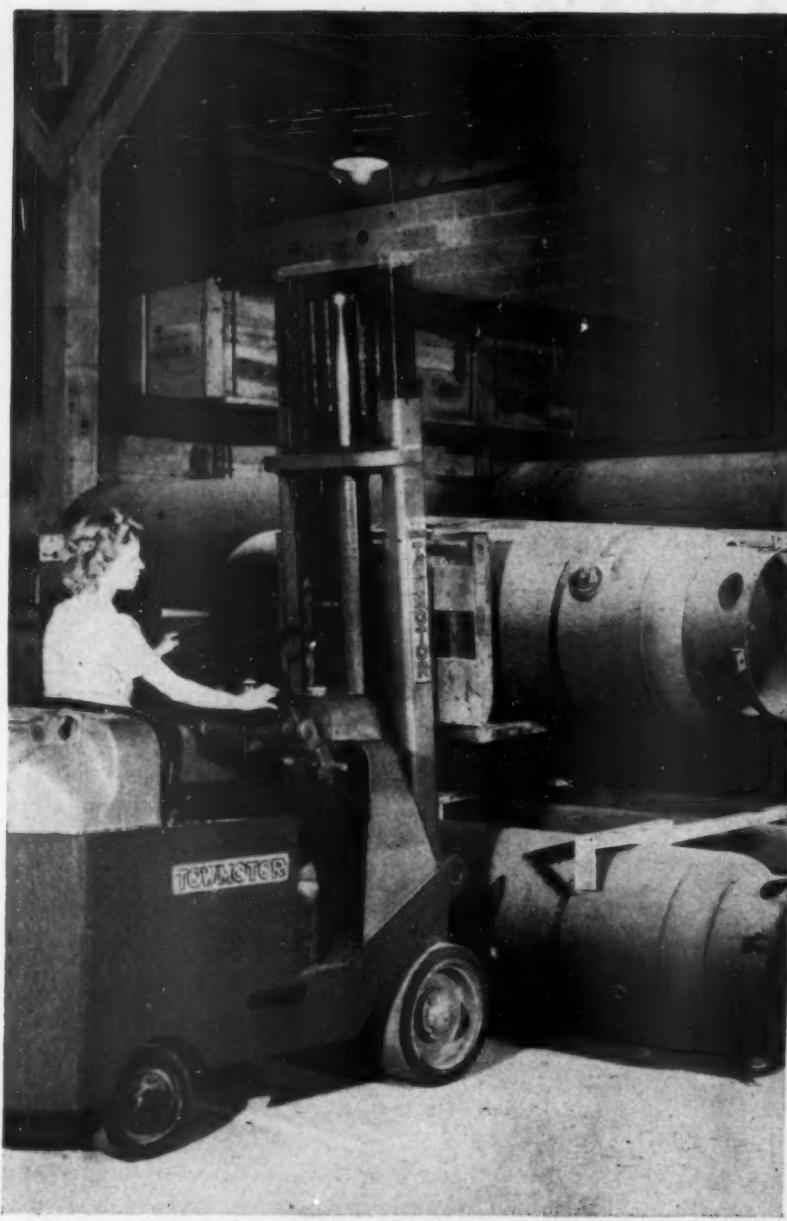
• The longest streak of lightning in the world is flashing through the skies! Super-range Lightning P-38 fighter planes team up with heavy bombers to deal knockout blows at distant targets.

On the production front smoothly-operating teams of Rohr production fighters work 'round the clock to help Lockheed put more and more of these outreaching P-38's on-the-wing. They use their skills to add new punch behind the challenge of increased production. They work to save the lives which will be spared by quicker victory.

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trouble. However, the company is said to be doing everything possible to meet the commission's requirements in order to insure offering of the bonds this year.

- Two Syndicates Ready—If Illinois Iowa can get clearance, the issue should move into the sales arena without delay since a 138-member Halsey, Stuart & Co. group and 116-member First of Boston Corp. syndicate are ready to bid for it.

The only other bond offering of any size that seems at all likely this month is the \$4,000,000 Stokely Bros. & Co. Inc. (BW—Sep. 18 '43, p105), 3½% debenture issue recently registered. Neither is the underwriting fraternity apt to grow fat from its take on new stock offerings the rest of 1943; only one is now in view—60,000 shares of \$25-par 4½% preferred by P. R. Mallory & Co., an Indianapolis manufacturer of electrical and electronic products anxious for "new money" to use for "conversion from wartime to peacetime operations and the reestablishment and expansion of its peacetime business."

- Nearby Stock Issues—Two big stock issues may be candidates for early 1944 offering before the Fourth War Loan drive on Jan. 18 brings the new corporate market to a temporary standstill. Standard Oil of Ohio is planning its first major financing in twelve years, asking stockholders to vote on the issuance of \$10,138,900 of new convertible preferred.

West Virginia Pulp & Paper, also, wants stockholder authorization for \$20,000,000 of new preferred stock and an increase in the authorized common from 1,000,000 to 1,500,000 shares (though its plan calls for selling now only \$15,583,000 of the new preferred, with a rate of not over 4½%, to retire its present 6% preferred).

FDIC OPPOSES RATE CUT

For some time, bankers have hoped that the present flourishing state of the nation's banking structure might before long lead to a move on the part of the Federal Deposit Insurance Corp. looking towards at least a fair-size reduction in the deposit insurance rates of member institutions.

Such hopes of late have been nourished by knowledge that the FPIC can now boast assets pretty close to the \$700,000,000 mark, as well as an income that runs around \$6,000,000 a month.

However, FDIC officials have done nothing to encourage the growth of such optimistic expectations. They have, in fact, indicated publicly their belief that present monthly income should be maintained indefinitely. FDIC also feels it should continue to make every effort to strengthen its present position even further to meet any postwar eventuality.

Auto Rate Poser

Casualty companies are making money on their reduced wartime premiums, but they need a new postwar formula.

After gasoline first was rationed in July, 1942, companies in the automobile insurance field began to be deluged with squawks of policyholders concerning the unfairness of trying to maintain standard liability rates when wartime restrictions were holding driving to a minimum.

Successive Rate Cuts—To head off possible trouble, the National Bureau of Casualty & Surety Underwriters came through with cuts (20% to A-card holders, 10% to others) on bodily injury liability in rationed areas.

However, this didn't stop the complaints, especially when an "independent" company subsequently announced a larger rate cut that was not confined solely to gas-rationed states. The original slice in rates soon had to be enlarged to around 30% and put on a nationwide basis (BW—Oct. 31 '42, p89).

Earnings Haven't Suffered—The companies since then have shown satisfactory operating results even though the lower rates were based mainly on management judgment rather than arrived at via the normal statistical method. Yet officials have no illusions that present rates can be long continued when war is over.

In fact, they claim automobile liability premiums constitute such a major part of their income that too numerous losses coupled with inadequate rates could soon raise hob with the casualty business. Consequently, company executives are already giving much thought to the designing of a rate-making method for use in the postwar period.

The Go-Slow School—Some in the casualty field are said to be definitely averse to any postwar program which would mean the sudden return to the old method of rating since they believe the public's reaction to a sharp rise in rates would be most unfavorable. Instead, they want present emergency rates maintained with as few changes as possible until a major adjustment is definitely indicated.

This group, moreover, thinks this would be feasible for quite some time since they believe that the public will not quickly change the slower-but-safer driving methods necessitated by the war; that the number of cars on the road will rise very slowly due to new car and tire shortages; and that new highways being planned will cut accidents as a result of new safety features.

Are Drivers Cured?—Those who favor higher postwar rates are much less opti-



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THE MARKETS

The bulls last week made the most of their opportunities. By the close Saturday, they could boast that of the 1,132 issues traded in on the New York Stock Exchange during the week, only 168 showed declines. Moreover, the industrial, railroad, and utility price recovered not only all the losses sustained in early-December trading but just about all those of November as well.

• **Conflicting Viewpoints**—The Street's congenital optimists thus had the first nonworrisome week-end period they had known for some time. Hence they indulged themselves in pleasurable anticipation of the near-term price trend.

Other Wall Streeters, however, for various reasons, weren't quite so easily satisfied. They hadn't been at all impressed with the leadership in the upsurge since only two of the 20 most active stocks were issues selling above \$20. Neither did they like the transitory nature of the speculative interest as evidenced by the drop in Big Board trading activity to around the 860,000-share level following Wednesday's 1,320,000-share turnover.

• **Not Tightly Held**—As a result, this group wasn't at all surprised when trading activity ebbed further this week nor at the return of declining price tendencies under the influence of selling by traders to clinch some of their recent profits. They still see signs, too, that plenty of stock is for sale periodically and, as an example, point to the fact that heavy buying of American and Baldwin Locomotive shares last week, on reports that Russia's peace needs will include 10,000 engines, sent their prices up only very slightly.

Thus there is a sizable brokerage segment that doesn't think stocks in general are headed for any sustained price

upsurge over the near future. They attribute last week's rise to better sentiment among investors created by news from the Teheran conferences, coming at a time when the market had reached a technically oversold position. Moreover, earlier-than-usual tax selling had created a certain amount of replacement buying.

• **Chart Readers Cautious**—The chart reading clan, probably influenced by memories of the lacing they took last summer when Mussolini's ousting ruined their rosy predictions, aren't going overboard with any overly optimistic forecasts, either.

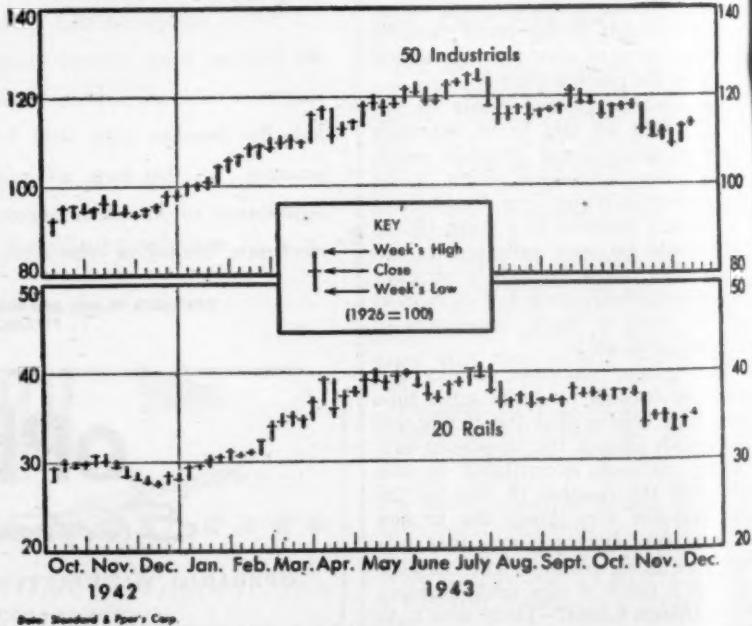
Among other things, last week's turnover did not impress them at all. The advance a week ago Wednesday was accomplished on the biggest trading volume seen in about a month, but the move was almost equaled Friday even though volume was 500,000 shares less. Consequently, they confine themselves to saying that nothing has yet occurred since last summer to change their opinion that the stock market has been in the throes of "an intermediate down-trend interrupting a bull market."

Security Price Averages

	This Week Ago	Month Ago	Year Ago
Stocks			
Industrial	113.5	112.9	110.6
Railroad	34.9	34.6	35.0
Utility	48.8	48.5	48.4
Bonds			
Industrial	119.3	119.4	118.9
Railroad	102.0	100.9	99.7
Utility	115.1	115.0	115.3
U. S. Govt.	112.1	112.2	112.3

Data: Standard & Poor's Corp. except for government bonds which are from the Federal Reserve Bank of New York.

COMMON STOCKS—A WEEKLY RECORD



mistic. They visualize the jalopy, now unused due to no gas, making a quick return to the roads in droves and expect the nation, so long restrained, to return with a vengeance to prewar fast driving habits. Also, they expect the condition of roads, following several years of necessary neglect, to be reflected in the accident rate.

Pending a compromise between these points of view, the casualty field generally hopes the rate-making method will not be too long in clearing the various state regulatory bodies.

Step Right Up

American Distilling blocks litigation aimed at "drinkidend" plans, makes public the details, and stock soars again.

Details of American Distilling Co.'s long-awaited "drinkidend" plan finally were announced this week immediately on the conclusion of successful legal action in its defense. The court victory was twofold: The U. S. District Court at Peoria denied a stockholders' petition for an injunction to stop the company's distribution of its spirits to shareholders (BW-Nov. 20 '43, p.82) and simultaneously granted a counter-injunction to bar further legal actions against the plan.

• Stock Soars Again—When Wall Street saw the terms Wednesday morning, there was another mad scramble for American Distilling common stock. Not just responsible for this rush, either, was the group still short the shares and now well aware of what it faces. Equally avid to buy the stock were liquor retailers, who, after digesting details of the plan (and aware that many smarter competitors had availed themselves of the opportunity earlier), saw the stock as an excellent medium through which to swell depleted shelf stocks.

First trade was a block of 3,000 shares at a price of \$125, or \$12.50 above the Tuesday close and \$20 over Monday. A few minutes later, the stock hit \$128, a level that represented a gain of well over \$100 in two months of trading.

• Two Parts to Plan—To consummate the plan, stockholders find that two operations will be entailed:

(1) Most important will be the issuance to them, before Dec. 24, of warrants evidencing their right (per share held) to purchase 16 cases (each holding twelve "fifths") of the company's Rocking Chair blended whisky at a cost of \$242.70 (including federal excise, the rectification tax of 30¢ a gallon, and bottling costs, but not the state and local taxes or freight charges).

(2) Stockholders then will receive on

a "GET-TOGETHER" at 1:30 P.M.



... got a job for a Graybar Supplier
for the Navy's Bureau of Ships

A West Coast ship builder had appealed to GRAYBAR for a special type of relay enclosed in a watertight box, to meet Navy specifications. At the time, no manufacturer was set up to make this new assembly.

Graybar's separate contacts with a relay manufacturer, a maker of phenolic insulation and a builder of watertight boxes pointed the way. Individual parts were shipped to GRAYBAR from three sources.

Working after hours at a work bench, GRAYBAR's local representatives made the "get-together" to com-

plete the sample assembly. The very next morning, it was submitted for approval.

Official "GR" drawings by the Bureau of Ships established the assembly as acceptable. GRAYBAR was then able to arrange with a supplier for regular production to meet Navy orders.

This wartime "liaison" between builder and user has a lesson for the future as well: Builders of electrical components and electrified products who look for new post-war markets for their products can count on strong support ... via GRAYBAR.

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Feb. 28, 1944, the right (for each share held) to buy an additional two cases (one of rye and one of bourbon, with twelve full quarts in each) of Good Old Gluckenheimer, a bottle-in-bond whisky for \$46.50. That price, likewise, includes all costs except state or local taxes and freight charges.

• **Dealers' Treatment**—Since the first announcement of the disbursement was made, the number of American Distilling stockholders is said to have grown from 2,000 to about 3,000. Most of the growth represents buying by the liquor trade. Consequently, arrangements have been made whereby, at the option of the trustee, stockholders who are distillers, bottlers, or rectifiers holding the necessary federal and state permits may buy their share of the disbursement in bulk form.

In New York State, the retail ceiling price for the Rocking Chair brand, though none is said to have ever sold in the area, would be \$505.60 for the 16 cases, excluding the state tax which, at \$3.60 a case, comes to \$57.60 for the lot. The similar ceiling for the two cases of Old Gluckenheimer is \$94.26, and the state tax here is a little higher —\$9.

All the whisky is now stored at the company's plants, and it is estimated that freight charges on the distribution will come to around 50¢ a case. However, no shipments into Kansas, Oklahoma, or Mississippi, the nation's three dry states, are possible.

• **Technical Problem**—The New York Stock Exchange's governors as yet have made no announcement as to just what temporary change in normal trading practice issuance of the buying rights will necessitate eventually. However, due to the nature of the distribution, some expect that the shares may be traded in two distinct forms until the "dividend period" has ended.

P. S.

Allied Mills' management experienced little trouble in securing approval of its plan to dispose of its subsidiary, Century Distilling Co., to National Distillers at the special stockholders meeting held last week (BW-Dec.4'43,p104). However, an attorney for one objecting stockholder is said to have threatened to seek an injunction to stop the deal on the grounds that the company's proxy-seeking letter contained misinformation.

. . . Shareholders of Chicago Mail Order Co. last week overwhelmingly approved the proposed contract (BW—Nov. 6'43, p109) with Lehman Bros., New York bankers. . . . Another railroad which has substantially reduced its debt this year (BW—Nov. 20'43, p105) is Great Northern. It has just advised the Interstate Commerce Commission that 1943 debt retirements will come close to the \$26,000,000 retired in 1942.

THE TRADING POST

Farm and Factory

A letter from Russell T. Kelley, advertising man of Hamilton, Ont.:

On page 80 of your Nov. 27 issue there is an item headed "Farmer Looks at Industry." I have read this with very keen interest because for many years I have been taking special interest in agriculture. Speaking from a Canadian standpoint I have always felt that if we had a prosperous agricultural industry we would have a prosperous Canada.

The figures you give are very interesting. This article states: "Where 96% of those questioned felt business prospered when farming did, only 79% were convinced that farmers did well when industry did." I wish I could have an opportunity of speaking to the 79% who said they were convinced farmers did well when industry did, for I believe they are entirely wrong. The one special reason for this is that the urban people have not only been prepared but very anxious to buy from the farmer what he produces at a price which does not give him a profit. It is my opinion that every business transaction to be good business must show a profit to both parties concerned, and we have been carrying on bad business when we have been buying from the farmer at prices which do not give him a profit.

During the past few years I have given hundreds of addresses on this subject, and of course find it most difficult to say in a letter all I would say in an address. In fact tonight I am going to speak to over five hundred people, farmers and business men. It is possible there will be 400 farmers and 100 business men present.

It is my considered opinion that three things will make agriculture prosperous: (1) better farming (2) new uses for farm products (3) a decision on the part of the urban people to pay the farmer a price which will give him a net profit.

Economists, bankers, and business men are generally agreed on the idea that if we had a prosperous agricultural industry we would have a prosperous Canada. This being so, my policy is to put the above three ideas into effect, and if we do there is absolutely no doubt that agriculture will be prosperous—both in your country and in mine.

"Man Bites Dog"

In a personal note from a reader who works for two federal government bureaus, I find the following comment. It may be a jolt to those who take business efficiency and governmental inefficiency quite for granted.

I was much interested in your Trend on page 116 of the Nov. 13 issue, and thought it was very good. While I have no quarrel to make with it, I beg to suggest that you turn the light in another direction and supplement this article with another regarding the benefit that has accrued to "management men who have come to Washington during the war," because of their government service. Many of them have come to realize

that the efficiency of the regular government agencies, and the amount of technical and practical intelligence displayed by regular government employees equal or excel any demonstration that they ever saw in private business.

Many an industrial man will never be content to go back to private work and use the slipshod methods that he used prior to his government service. I have worked with many private manufacturers during my 17 years of government service, and have accumulated plenty of evidence for such views.

For instance, the planning and execution of large scale surveys, the method of selecting samples, the design of questionnaires and the interpretation of results, have been far developed in government service, and will put a lasting imprint on private marketing research. The same is true of any other kind of poll in private business in which the pulse of subscribers or potential customers is gauged.

Then again, when it comes to planning operations on a big scale and dealing with the public, only the highest grade work has been done and will be tolerated. Many of them will find that their career here has opened their eyes to possibilities that they never before had in mind. You can enlarge on this at length. Business men need to be told some of those things.

Small Specific Cases

A couple of weeks ago, a top-drawer executive I know sounded off on the subject of renegotiation, taxation, and related impediments to business planning for postwar expansion. He had his own ideas as to what it takes to create a more favorable governmental climate for enterprise.

"We bellyache too much about these matters in the abstract," he declared. "I have a hunch we'll get a lot further if a specific business man will take to his own congressman a specific case of something he can make and is willing to make, show the congressman how much employment it will create and how much money he needs to get it under way. Then, if he can show him just why and how the taxes or what-have-you get in the way, that congressman is more likely to be impressed. Certainly he'll be better armed to go to bat for a policy that will mean something specific for the benefit of his own constituents."

"We forget sometimes," he concluded, "that these congressmen are our congressmen too, and that if we want them to get a business viewpoint on these matters, we ought to give them a business viewpoint. And one way to do that is to break down some of our ideologies and principles into small specific cases that they can get their teeth into. At least, that's how it looks to me."

W.C.

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THE TREND

THE REAL INVENTORY SITUATION

With victory approaching, inventory policies are coming in for re-examination. Many business men look with foreboding to the impact of peace on current large stockpiles; they fear losses on inventory accounts and ensuing inventory liquidation as a drag on postwar conditions in general. Thus have the lessons of 1921, 1929, and 1937 been learned.

But pessimism can be carried too far. For the reconversion prospect is for healthy inventory building; the danger is, rather, one of speculative overaccumulation.

• **Business inventories are now subnormal, relative to a high level of peacetime business activity.** Their total value has increased over 50%—10 billion dollars—in the past five years. But much of that increase, perhaps over half, represents price inflation alone. Turnover rates—sales divided by inventory—have actually risen sharply.

Rising turnover is to be expected in times of quickening activity. But the wartime stepup has been sharper than recent peacetime experience would lead us to expect—especially in wholesaling, but also in retailing and in manufacturing.

In peacetime periods of boom, turnover rates slow down, as business men stockpile to protect themselves against rising prices and tightening deliveries. That happened during the second half of 1941 and the first half of 1942 (chart, page 13). But then soaring consumer demand overtook shrinking supplies in the civilian economy, and priorities and allocations took firm hold in the war sector. As a result, inventory fat has been drained off.

On comparison with the twenties, present inventory totals seem even smaller. In manufacturing, physical inventories are now only around 50% larger than in the twenties, production 200% higher; trade stocks are actually lower, though more goods are being sold. In part the high inventories of the twenties were a legacy of the 1918–20 overaccumulation; contrary to frequent supposition, stocks of goods were not sold off during the 1920–21 price deflation.

• **Obviously, business inventory totals tell only part of the story.** Inventories are now in wartime goods; after reconversion, they will be in peace goods. Where wartime merchandise is of a lower quality or a different type than would be used in peacetime, the financial threat is liquidation at severe loss. Businesses selling to civilians wish to have sold much stocks off by the time normal goods return; war contractors try to keep inventories down to the necessary "in-process" goods for which procurement agencies will reimburse them upon contract termination.

To hold just enough special wartime merchandise on hand in order to continue operating, but not so much as to invite inventory losses, is a delicate problem in balancing. Every executive concerned will have to keep on his toes to solve it.

But, taking an over-all look, business is more aware of liquidation dangers than ever before, and therefore is more apt to meet them. Further, though some such inventory losses are inevitable—and not alone because of bad guessing—many businesses have anticipated the losses by last-in-first-out accounting, by contingency reserves, and by similar procedures. This implies that corporate financial structures are not apt to be dangerously weakened—that reconversion won't be slowed—simply by such losses from liquidation of wartime-goods inventory. Finally, the wartime merchandise that has to be sold off must be replaced, as we saw, by at least a comparable volume of peacetime goods if business is to go on operating at high levels.

• **One additional factor that must be entered into the inventory equation is the government.** On the one hand, it will, upon contract cancellation, absorb the bulk of arms plant inventories unusable in peace. On the other hand, the government has stockpiles of materials and finished goods which are usable in peacetime channels.

Unfortunately, the dimensions of the government's potential role have not yet been clearly defined. That has led to many exaggerated notions of the surpluses it could sell. But studies now under way at least show that usable government inventories will total well under ten billion dollars. We clearly need more data on this aspect—especially since the usable surpluses might be concentrated in certain types of goods, the unusable excesses in others.

In general, however, the unusable inventory now in business hands which will be absorbed by the government is likely to outweigh the usable inventory that the government will have to sell to business. In any case, it has already been widely recognized that disposal of surpluses must be orderly, and, though the policies and mechanisms required must yet be forced through, it is likely that they soon will be.

• **In the final analysis, business conditions during reconversion will affect inventories more than inventories will affect business conditions.** Bottlenecks and uncertainties in the reconversion period may result in a depression spiral. If production falls off sharply, net inventory liquidation will follow, thereby further deflating order books; if prices drop, there will be inventory losses which will tax some businesses' financial position.

What is true is that the inventory trend today is favorable: business will need more inventory than it has, in order to sustain high levels of peacetime activity. If conditions point to prosperity, inventory rebuilding will help push the economy through the bottlenecks of reconversion; then the danger will be overaccumulation, resulting from an uncontrolled, pyramiding scramble for goods.

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